

I. Descriptions of new Genera and Species of Asiatic Nocturnal Lepidoptera. By F. MOORE, F.Z.S.

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(Plates XXXVII., XXXVIII.)

Tribe BOMBYCES.

Fam. CHALCOSHIDÆ.

CHATAMLA, n. g.

*Male and Female.* Fore wing elongated, trigonal, costal margin nearly straight, apex slightly rounded, exterior margin very oblique and slightly convex, posterior margin nearly straight; costal vein extending to two thirds of the wing, first subcostal branch emitted at half length of the cell, second at one fourth before end of the cell, and trifid near the apex, fifth bifid at half its length beyond the cell; cell short; discocellulars slightly concave, the radial starting from their middle; median vein three-branched, second emitted from angle before end of the cell; submedian nearly straight. Hind wing short, broad, anterior margin arched at the base, apex slightly convex, exterior margin convex, angled anteriorly and at the middle, abdominal margin long; costal vein extending to apex, subcostal two-branched, first emitted before end of the cell; cell short; discocellular slightly oblique, radial from near upper end; median three-branched, second from angle before end of the cell; a submedian and a slender internal vein. Body slender, short, squamose; antennæ finely bipectinated; palpi slender, pilose, apex pointed; legs squamose, spurred.

Type *Chatamla flavescens*.

CHATAMLA FLAVESCENS.

*Euschema flavescens*, Walker, Catal. Lep. Het. Brit. Mus. ii. p. 406 (1854); Illustr. Type Spec. Lep. Het. Brit. Mus. part i. p. 57, pl. 14. fig. 3, ♀ (1877).

*Hab.* Khasia Hills.

CHATAMLA NIGRESCENS.

*Euschema nigrescens*, Moore, Descr. Lep. Coll. Atk., As. Soc. Beng. p. 20 (1879).

*Hab.* Darjiling.

Fam. NOTODONTIDÆ.

CORMA, n. g.

*Male.* Fore wing elongated, narrow, slightly arched towards apex, exterior margin oblique and convex, hind margin slightly lobed near base; subcostal vein six-branched, first branch starting before end of the cell, second trifurcate towards apex, fifth and sixth starting

together from near base of second, the fifth coalescing with the second at one third its length; discocellulars slightly oblique, radial from their middle; median vein three-branched, two upper from end of the cell; one submedian. Hind wing convex externally; subcostal vein two-branched; discocellulars, radial and median veins as in fore wing. Body long, slender, laxly pilose, tip tufted with spatulate hairs; antennæ long, pectinated rather broadly two thirds their length; palpi short, stout, pilose; legs pilose.

Allied to *Pydna*, Walker.

**CORMA HORSFIELDI.**

*Eumeta horsfieldi*, Moore, Catal. Lep. E.I. C. ii. p. 430 (1859).

*Hab.* Java. Horsfield coll. Brit. Museum.

**CORMA RAFFLESI.**

*Eumeta rafflesi*, Moore, Catal. Lep. E.I. C. ii. p. 430 (1859).

*Hab.* Java. Horsfield coll. Brit. Museum.

**Fam. COSSIDÆ.**

**Genus ZENZERA.**

**ZENZERA MULTISTRIGATA, n. sp.**

*Zenzera indica*, Walker, Catal. Lep. Het. B. M. vii. p. 1536 (1856), nec H.-Schäff.

*Male and Female.* White: fore wing with steel-blue spots along the costa, within the cell, and at its end, and along the exterior and posterior borders, the discal spaces between the veins with steel-blue transverse streaks: hind wing with less prominent similar steel-blue markings within the cell and on anterior border. Body white, six steel-blue spots on hind part of thorax, and seven bands on the abdomen; front of head black; legs steel-blue above, femora white beneath; antennæ black.

Expanse, ♂  $2\frac{5}{8}$ , ♀  $3\frac{2}{8}$  inches.

*Hab.* Darjiling. In coll. Brit. Museum and F. Moore.

*Note.* *Z. paucipunctata*, Walker, l. c. p. 1537, is identical with *Z. indica*, H.-Schäff., Lep. Exot. spec. nov. f. 166 (1854).

**Tribe NOCTUES.**

**Fam. CYMATOPHORIDÆ.**

**Genus THYATIRA, Ochs.**

Fore wing with second subcostal branch bifurcate; fourth branch also bifurcate; upper and lower discocellulars concave, upper bent near subcostal; upper radial from the angle near subcostal, and lower radial from their middle; upper median branch from angle above end of the cell, middle branch from its end. Hind wing with the costal vein free at its base from the subcostal, but curved in the middle; first subcostal branch emitted from half length of the cell, curving upward and touching the costal at its middle; radial and

upper median branch from slight angles above end of the cell, middle median branch from end of the cell.

Type *T. batis*, Linn.

*THYATIRA DECORATA*, n. sp. (Plate XXXVII. fig. 1.)

*Male and Female.* Fore wing dark brown, with a peach-coloured basal trilobed spot, a large oval spot within the cell, a smaller spot at its end, an oblique irregular-shaped costal spot before and a similar spot at the apex, a large deep-coloured spot at the posterior angle, and two small marginal spots above it, followed by lunules to the apical spot; an elongated spot on middle of the hind margin; some indistinct pale-bordered black sinuous lines crossing the wing between the spots: hind wing pale brown, with a small marginal pale yellowish patch near anal angle. Body pale ochreous-brown; palpi and legs with dark brown bands.

Expanse ♂  $1\frac{5}{8}$ , ♀  $1\frac{6}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*RISOBA*, n. g.

Allied to *Thyatira*. Fore wing somewhat shorter; costal margin arched at apex, angle acute, exterior margin less oblique; second subcostal branch trifurcate, its lowest fork (or fourth branch) near the apex, fifth branch curved upward from end of the cell and touching the third near its base; upper discocellular obliquely concave, slightly bent at its lower end; upper radial straight from end of the cell, lower radial and upper median branch from angles close above end of the cell. Hind wing very convex exteriorly; costal and subcostal veins joined together at their base, two subcostal branches from end of the cell, radial and upper median branch from end of the cell, middle median branch from angle before end of the cell. Body slender; thorax broad, crested in front; antennæ long, minutely pectinated in male.

Type *R. repugnans*.

*RISOBA REPUGNANS*.

*Thyatira repugnans*, Walker, Catal. Lep. Het. B. M. ix. p. 9.

*Hab.* India, Ceylon.

*RISOBA OBSTRUCTA*.

*Bolina obstructa*, Walker, MS. Brit.-Mus. Cabinet.

*Male and Female.* Fore wing greyish brown, indistinctly black-speckled; a white basal oblique slender band, which is slightly brownish hindward and has a black sinuous border; a discal greyish white fascia bordered externally by an irregular black line; a black dot within the cell, and a circle enclosing another dot at its end; exterior border traversed by a broad, blackish, whitish-bordered, indistinct band, terminating at the apex in blacker streaks; a marginal row of black lunules bordered inwardly with white: hind wing pale cinereous-brown, with pale-brown marginal band.

Expanse, ♂ 1, ♀  $1\frac{2}{8}$  inch.

*Hab.* Ceylon (*Mackwood*); Calcutta (*Atkinson*). In coll. F. Moore.

*RISOBA PROMINENS*, n. sp.

*Male.* Fore wing pale greenish brown, crossed by black sinuous lines; a prominent white basal, posteriorly obstructed, oblique band; a discal transverse, white, ill-defined fascia, which is broad at the costal end, narrow hindward, and margined by an exterior black sinuous line; exterior border and apex with white-bordered longitudinal apical blackish streaks, transverse sinuous line, and a submarginal row of lunules; an irregular black line and central dot at end of the cell: hind wing cinereous-white, with a broad pale-brown marginal band. *Female* darker, less grey, and discal fascia obsolete; apical streaks and lower sinuous lines bordered with ochreous. Body greyish brown; thorax white-speckled; legs brown above.

Expanse, ♂  $1\frac{3}{10}$ , ♀  $1\frac{4}{10}$  inch.

*Hab.* Khasia Hills (*G.-Austen*); Malacca. In coll. F. Moore.

*RISOBA LITERATA*, n. sp.

*Male.* Fore wing pale greenish brown, with a distinct white transverse basal, outwardly-oblique band, and a discal inwardly-oblique narrow straight band, both bands forming a prominent letter W; dark brown streaks at apex, and two subapical paler sinuous white-bordered lines; a brown pale-circled patch and a dot within the cell: hind wing brownish cinereous, with a broad brown marginal band. Body brown; thorax white; anterior segments of abdomen white-speckled; legs brown above.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Nilgiris. In coll. F. Moore.

Differs from *R. vialis* in the decidedly more distinctly formed bands, and in the absence of any black sinuous outer border; the hind wing also has a broader marginal band.

*RISOBA DIVERSIPENNIS*.

*Heliothis diversipennis*, Walker, Catal. Lep. Het. B. M. xv. p. 1750 (1858).

*Female.* Fore wing pale brown, with a prominent white longitudinal streak from base through the cell, below which is a short basal white streak similarly disposed as in the other species; a dark-brown apical patch with white terminal streaks; outer border crossed by suffused black lines; veins black- and white-spotted; marginal white dentate line very prominent: hind wing cinereous-white, with broad brown marginal band and a discal spot. Body brown; thorax white-speckled; legs brown above.

Expanse  $1\frac{4}{10}$  inch.

*Hab.* Malacca and Singapore. In coll. British Museum and F. Moore.

KERALA, n. g.

Fore wing long, narrow, costa slightly arched near the base, apex acute, exterior margin slightly oblique and excavated near posterior



angle; posterior margin somewhat recurved; second branch of subcostal trifurcate near its end; fifth bifurcate, curving upward, and touching the second at one fourth from its base, the fork (or upper radial) emitted from beyond end of the cell; discocellular angled at its lower end; lower radial and two upper median branches from the angles at end of the cell. Hind wing moderately broad, triangular; costal and subcostal veins joined together at their base, subcostal bifurcate at half its length beyond the cell; discocellular angled inward at its middle, and outward near its lower end, the radial from lower angle; two upper median branches on a foot-stalk beyond the cell. Body slender; abdomen smooth; antennæ slender, setose; palpi slender, squamose, apex short and conical; legs squamose.

**KERALA PUNCTILINEATA, n. sp.**

*Male.* Yellowish or greyish ochreous; costal area reddish ochreous; all the veins to beyond the middle with alternate black and yellow or grey spots, those on the subcostal branches forming streaks; a transverse black dentated band with white inner border; a pale yellow orbicular and reniform spot, the latter with black outer border: hind wing and abdomen pale cinereous-brown; discal area ochreous. Thorax, head, palpi, and legs yellowish ochreous; legs black-banded.

*Female* reddish ochreous, marked as in male: hind wing uniformly pale cinereous-brown.

Expanse, ♂  $1\frac{5}{8}$ , ♀  $1\frac{6}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

**SARONAGA, n. g.**

Fore wing long, narrow; costa arched near base and before the apex, angle acute, exterior margin oblique and convex hindward, posterior margin straight to near its end; second subcostal bifurcate, fourth trifurcate, the upper radial starting from it at some distance beyond end of the cell; discocellulars angled, lower radial from their middle angle; upper median branch from angle above end of the cell, middle branch from its end. Hind wing broad, triangular; costal margin elongated, apex abruptly convex, exterior margin very oblique and convex in the middle; costal and subcostal veins joined together at their base, the two branches of subcostal starting from before end of the cell; discocellular bent in the middle, radial from near its lower end; two upper median branches from acute end of the cell. Thorax and body slender; palpi stout, squamose, third joint short and conical; antennæ long, slender; legs pilose beneath.

**SARONAGA ALBICOSTA.**

*Thyatira albicosta*, Moore, P. Z. S. 1867, p. 45.

*Hab.* Darjiling. In coll. F. Moore.

**Genus PALIMPSESTIS, Hübner.**

*Palimpsestis*, Hübn. Verz. bek. Schmett. p. 237.

*Cymatophora* (part.), Treit.

*PALIMPSESTIS ALTERNATA*, n. sp. (Plate XXXVII. fig. 2.)

Allied to *P. ocularis* of Europe. *Male*. Fore wing pale metallic cupreous-brown, crossed by a broad basal, a median, and two narrow submarginal greenish-grey indistinct bands; some black basal spots, an ante- and postmedian transverse black sinuous line, and black and white streaks externally along the veins: hind wing and abdomen pale cupreous-brown. Thorax greenish grey; collar, front of head, palpi, and legs rufous-brown; legs with black bands.

Expanse  $1\frac{7}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*PALIMPSESTIS CUPRINA*, n. sp. (Plate XXXVII. fig. 3.)

*Male and female*. Fore wing pale metallic brown, slightly cupreous anteriorly, and the area below the cell greenish; two or three black transverse antemedian lines angled at median vein; some basal spots, a black discocellular recurved mark and a spot within the cell; five or six transverse discal indistinct sinuous lines with black and white dentate marks on the veins; a submarginal pale lunular line and a marginal black line: hind wing pale cupreous-white, with pale cupreous-brown marginal band. Thorax, head, and palpi brown; abdomen paler; collar black; fore and middle legs with black bands.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Fam. BRYOPHILIDÆ.

## Genus BRYOPHILA.

*BRYOPHILA LITERATA*, n. sp.

Fore wing greyish white, with a transverse basal black band, a broad median olivaceous-black band bordered inwardly by a black sinuous line, and outwardly by a duplex lunular line, which is convex beyond the cell; a less distinct submarginal zigzag line, with a black costal patch extending between it and the discal line; a marginal black lunular line with the points ending in a cilia black spot; orbicular and reniform marks each defined by a black line, with inner white border and blackish centre, and forming imperfectly the letters C R, the interspace between the reniform and the outer sinuous duplex line of the same colour as the discal area: hind wing cinereous, with a pale cinereous-brown outer band, less distinct median fascia and discocellular streak; cilia white, spotted with brown. Tegulæ and dorsal tufts fringed with black; palpi and fore tibiae with brown bands.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Cashmere. In coll. F. Moore.

Allied to *B. glandifera*. Differs in having a black subbasal band, the inner black sinuous line of the median band continued to the posterior margin, a less black submarginal irregular fasciated line, and in the marginal black lunular line having the points directed to the cilia spots.

*BRYOPHILA NILGIRIA*, n. sp.

Fore wing ochreous-white, with a black transverse subbasal, an antemedian zigzag narrow line, a postmedian sinuous line extending outwardly across the disk to a submarginal zigzag fascia; a black lunular marginal line; orbicular spot small, black-lined and white-centred, reniform mark large and formed only by a black line, their interspace blackish: hind wing cinereous-brown, palest at base; cilia white. Thorax cinereous-white; tegulæ and dorsal tufts black-fringed; abdomen cinereous-brown; palpi, and legs above, banded with black.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Ooty, Nilgiris. In coll. F. Moore.

*BRYOPHILA MEDIANA*, n. sp.

Fore wing with a broad median transverse olive-brown band, the inner margin of which is defined by a white-bordered black-pointed zigzag line, and the outer margin by a similar sinuous line; orbicular and reniform marks indistinctly white-bordered and confluent at their lower end; a short subbasal olive-brown costal band; the area between the base and median band, and the entire outer border of the wing, clouded with olive-brown speckles; an indistinct slender black marginal line: hind wing cinereous-brown; cilia white.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* Solun, Punjab. In coll. F. Moore.

*BRYOPHILA MODESTA*, n. sp.

Fore wing pale brownish ochreous, with an indistinct black-speckled, subbasal, transverse band, an antemedian and a postmedian sinuous black-speckled line; the entire area from the antemedian line to the outer margin clouded with black speckles; orbicular mark black, reniform ill-defined; a slight marginal black lunular line: hind wing cinereous-brown, cilia whitish. Body brownish ochreous; palpi and fore legs above with slight brown bands.

Expanse 1 inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.

Allied to *B. algæ*.

## Fam. BOMBYCOIDÆ.

Genus *ACRONYCTA*, Ochseneheimer.*ACRONYCTA BICOLOR*, n. sp.

Fore wing black, minutely speckled with grey; orbicular and reniform marks and transverse sinuous lines indistinctly blacker: hind wing white; costal and subcostal veins slightly black-speckled; a marginal row of black-speckled spots and cilia border. Thorax, palpi, and legs black, grey-speckled; tarsi with pale bands; abdomen brown, with black dorsal bands.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Solun, Punjab (N.W. India). In coll. F. Moore.

## Genus TRIÆNA, Hübner.

## TRIÆNA MAXIMA, n. sp.

Allied to *T. tridens* of Europe. Fore wing grey, speckled with brown; an oblique, transverse, subbasal black duplex sinuous line, and a similar but more sharply-pointed sinuous discal line; a marginal row of black spots; a longitudinal irregular black basal streak along the median vein, which nearly joins a straight streak to the outer margin; orbicular and reniform spots black-lined and joined by an intervening upper black linear streak: hind wing pale greyish cinereous, with the veins, a discal line, and a marginal band cinereous-brown. Thorax grey, abdomen greyish cinereous; palpi and legs with dark bands.

Expanse  $2\frac{1}{4}$  inches.

*Hab.* Punjab Hills, N.W. India (*B. Powell*). In coll. F. Moore.

## Fam. LEUCANIIDÆ.

Genus ALETIA<sup>1</sup>, Hübner.

*Aletia*, Hübn. Verz. bek. Schmett. p. 239 (1816.)

*Hyphilare*, Hübn. *ibid.*

## ALETIA ANGULIFERA, n. sp.

*Male.* Allied to *A. conigera* (*Noctura conigera*, Schiff.). Fore wing ochreous-yellow, indistinctly clouded with red-ochreous scales; crossed by a reddish-black antemedian outwardly-bent line and an oblique postmedian line, which is bent inward at costal end; a whitish spot at lower end of the cell, a pale-yellow reniform and orbicular space; marginal and cilia lines black-speckled: hind wing pale dusky brown, cilia pale yellow. Thorax, head, palpi, and legs ochreous-yellow; abdomen paler.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* N.W. Himalaya, Cashmere (Sind valley). In coll. F. Moore and Dr. Staudinger.

## ALETIA DISTINCTA, n. sp. (Plate XXXVII. fig. 4.)

Allied to *A. vitellina*, Hübn. *Male.* Fore wing deep ochreous-yellow, sparsely crossed by short irregularly disposed red strigæ, more or less black-speckled; a prominent antemedian and postmedian transverse curved narrow band of the same colour, but more blackly speckled, beyond which is a discal row of black spots followed by a white streak—one on each vein; a marginal series of black dots—one on each vein; orbicular and reniform space marked by red strigæ; space beyond the cell to the postmedian band clouded with dusky red; cilia from apex to near end of hind margin thickly black-speckled: hind wing pale ochreous-brown posteriorly, yellowish anteriorly; cilia pale yellowish. Thorax, head, palpi, and legs deep ochreous; a slight black-speckled collar, a few speckles on tegulæ, and a cluster at base of pale ochreous abdomen.

Expanse  $1\frac{5}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Type *A. vitellina*, Hübn.



## BOROLIA, n. g.

Fore wing narrow; costa slightly arched at the base, apex pointed, exterior margin slightly oblique, posterior angle convex; cell narrow; first subcostal branch emitted at half length of the cell and extending close alongside the costal; second emitted before end of the cell, trifold; the third starting from near its base above the cell, and touching the fifth; fourth short, fifth emitted and curving upwards from end of the cell; upper discocellular short, outwardly oblique, lower concave; radial from end of upper discocellular; lower radial and two upper median branches from angles at lower end of the cell, fourth at some distance before the end; submedian recurved. Hind wing with long costal margin, exterior margin very oblique, abdominal margin short; subcostal straight, both branches emitted from end of the cell; discocellulars concave; radial from their middle; median straight, two upper branches from end of the cell. Cilia broad. Antennæ setulose; palpi ascending, pilose beneath, second joint long, third short and slender; femora pilose beneath.

Type *B. furcifera*.

BOROLIA FASCIATA, n. sp. (Plate XXXVII. fig. 12.)

*Male and Female.* Upperside—fore wing pale brownish-ochreous, palest along the costa; an irregular bordered chestnut-brown fascia from the base to below the apex, which is bordered below the base by a short darker streak; a black dot at base of the wing, and two transverse discal indistinct rows of dots, which in the female are apparently joined together by an intervening line; a marginal row of black dots: hind wing pale brown. Underside paler; fore wing with a slightly darker discal area; hind wing with an indistinct discocellular spot, transverse discal linear streaks, and marginal spots. Palpi brown at the side.

Expanse ♂  $1\frac{2}{8}$ , ♀  $1\frac{3}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Genus LEUCANIA.

LEUCANIA BISTRIGATA, n. sp. (Plate XXXVII. fig. 18.)

*Female.* Fore wing pale ochreous, with a suffused brown fascia from the base through the cell to end of the costa, another fascia obliquely from below the apex, and extending along the exterior margin; a very prominent, white, black-bordered terminally-bent streak at lower end of the cell, the outer veins also whitish; a black basal streak below the cell, and another streak below the submedian vein; three very indistinct black dots on the costal edge, some across the disk, a marginal series of minute black points bordered with pale outer cilia lines: hind wing pale ochreous-brown; cilia ochreous-white with a brown line. Thorax with a black- and white-speckled crest, collar, and tegulæ; palpi and legs brown-speckled; abdomen pale ochreous.

Expanse  $1\frac{7}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Allied to *L. decissima*, Walker ; may be distinguished from it by having a linear discoidal streak much more clearly defined, the two basal black streaks, and by the cilia of fore wing being distinctly lined.

*LEUCANIA PENICILLATA*, n. sp.

Fore wing pale greyish ochreous, with a dusky-brown suffused fascia from the base through the cell to apex, and extending obliquely from below the apex along the exterior margin, the oblique interspace from the apex whitish ; external veins whitish ; a prominent, short, white, black-bordered terminally-bent streak at lower end of the cell ; a black streak below base of the cell, and another below submedian vein ; costal border slightly black-speckled ; some indistinct black dots disposed across the disk, and a marginal row of black points ; cilia with brown lines : hind wing greyish brown, whitish at the base, the veins darker, and with an indistinct discocellular darker lunular spot ; cilia white, with a brown line. Thorax and collar speckled with black and grey ; palpi and legs black-speckled ; male with a black tuft at the base of abdomen beneath.

Expanse  $1\frac{4}{2}$  inch.

*Hab.* Solun, Punjab ; Dalhousie (N.W. India). In coll. F. Moore.

Allied to *L. bistrigata*.

*LEUCANIA MODESTA*, n. sp. (Plate XXXVII. fig. 11.)

*Male and Female.* Fore wing pale ochreous, external area below the apex slightly darker, with an antemedian transverse indistinct sinuous black line, a postmedian series of points, and marginal row of black dots : hind wing pale brownish-ochreous and yellow along the costal border, with an indistinct darker discocellular lunular spot and marginal spots. Tegulæ very slightly black-speckled.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*LEUCANIA LINEATIPES*, n. sp.

*Male.* Fore wing pale ochreous, with a distinct straight white line along the median vein from the base to the outer margin, a brown fascia extending below the cell ; a black discocellular spot at lower end of the cell, four or five points across the disk, and a marginal row of minute dots : hind wing pale brownish ochreous, outer border slightly darker, and with indistinct minute black dots below the apical margin. Front of head and palpi darker and brighter ochreous-brown ; legs in front with a brown longitudinal streak.

Allied to *L. impura*.

Expanse, ♂  $1\frac{3}{10}$ , ♀  $1\frac{4}{10}$  inch.

*Hab.* Cherra Punji, E. Bengal. In coll. F. Moore.

*LEUCANIA ADUSTA*, n. sp.

*Male and Female.* Fore wing ochreous-yellow ; median and sub-

median veins white; borders of the veins and a line between each vein ochreous-brown; costal border and an oblique apical streak ochreous-brown; a few black speckles disposed on the costa, also within and below the cell; a discal series of black-speckled spots, one on each vein, and a marginal row of spots; cilia brown: hind wing ochreous-white, external area pale cupreous-brown; marginal spots black; cilia white. Underside ochreous-white, suffused with pink externally; both wings speckled with brown on anterior and exterior borders, and with a marginal row of black spots; fore wing with a small black costal spot before the apex.

Expanse, ♂  $1\frac{3}{8}$ , ♀  $1\frac{4}{8}$  inch.

*Hab.* Manpuri, N.W. India (*Horne*), Darjiling; Khasia Hills (*Atkinson*). In coll. F. Moore and Dr. Staudinger.

*LEUCANIA SUBSIGNATA*, n. sp.

*Male.* Fore wing pale ochreous, darker between the veins; several minute black speckles disposed along the costal border below the cell, two clustered series within the cell, and others beyond the cell; a discal and marginal row of minute black spots: hind wing white, discal area brownish. Underside paler; fore wing with a black costal spot before the apex; hind wing with a few black speckles on anterior border.

Expanse 1 inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.

*LEUCANIA CONSIMILIS*, n. sp. (Plate XXXVII. fig. 19.)

*Male.* Near to *L. decissima*, but differs in being larger, paler, and more uniformly coloured. Fore wing with paler linear markings between the veins, the white portion of the discoidal streak half its length and less distinct, the transverse discal spots and the subbasal series more loosely speckled, the marginal series less distinct, the basal two thirds of the wing also sparsely sprinkled with black speckles: hind wing paler brown, and whitish at the base. Underside of both wings ochreous-white, with an indistinct transverse discal brown line. Thorax, head, and palpi brown-speckled; legs with pale-brown streaks.

Expanse  $1\frac{7}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*LEUCANIA COMPTA*, n. sp. (Plate XXXVII. fig. 8.)

*Male.* Fore wing pale brownish ochreous, veins ochreous-white, with intervening pale white and brown lines; a transverse discal row of distinct minute black points; subcostal branches and median with its branches slightly black-bordered to the discal points; two indistinct black spots on the costa, one below the cell, and two on the submedian vein; marginal row of black dots indistinct: hind wing ochreous-white, veins and the apical border ochreous-brown. Thorax, palpi, and legs above brownish ochreous with darker speckles; abdomen ochreous-white.

Expanse  $1\frac{1}{12}$  inch.

*Hab.* Pudda river (*Atkinson*). In coll. Dr. Staudinger.



*LEUCANIA NAINICA*, n. sp. (Plate XXXVII. fig. 15.)

*Male and Female.* Fore wing very pale reddish ochreous, palest along the veins; a few minute black speckles along the costal and posterior borders; median vein and its two upper branches white, bordered with a brown streak above and below the cell, a black spot at end of the cell, a transverse discal series of minute black points, and a marginal row of dots: hind wing slightly paler, outer margin suffused with brown; cilia whitish. Thorax in front, palpi, and legs above brown-speckled.

Expanse, ♂  $1\frac{2}{12}$ , ♀  $1\frac{4}{12}$  inch.

*Hab.* Naini Tal, N.W. Himalaya. In coll. Dr. Staudinger.

*LEUCANIA ALBISTIGMA*, n. sp. (Plate XXXVII. fig. 9.)

*Female.* Fore wing pale brownish ochreous, greyish along the costal border and obliquely below the apex; veins speckled with grey and brown, most prominently along the median and its branches; an indistinct curved discal series of minute black points; a small brown spot in middle of the cell, and a black streak extending through and beyond its end, which is crossed by a white discocellular spot; a slender black streak below end of the cell: hind wing ochreous-white; veins lined with brownish ochreous. Thorax, palpi, and legs greyish ochreous, the palpi and legs brown-speckled; abdomen ochreous-white.

Expanse  $1\frac{2}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*LEUCANIA HOWRA*, n. sp. (Plate XXXVII. fig. 16.)

*Female.* Fore wing pale brownish ochreous, greyish along base of the costa, below the apex, and below the cell; brown-speckled; veins ochreous-white, the subcostal branches and the median with its branches lined with brown to the discal black points; a brown line between all the veins, and a prominent black basal streak below the cell; a marginal row of minute black dots: hind wing ochreous-white; veins brownish ochreous, some marginal black dots. Thorax, palpi, and legs greyish ochreous, speckled with brown; abdomen ochreous-white.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Calcutta. In coll. Dr. Staudinger.

*LEUCANIA RUFISTRIGOSA*, n. sp.

*Female.* Near to *L. dharmā*. Fore wing pale yellowish ochreous, with a reddish-ochreous longitudinal fascia through the cell to apex, and extending paler obliquely below the apex; ochreous-red incomplete lines between the veins; an indistinct series of discal black points and a black spot below the cell; median vein and its two upper branches to the discal black points white bordered with black, the white very distinct and sharply defined for half length of the cell: hind wing and abdomen pale brown, with a slightly darker discocellular spot. Underside paler; fore wing with the costal border pale brown, the discoidal area and median veins dusky brown:



hind wing brown-speckled, with a distinct blackish discocellular lunular spot. Legs brownish above.

Expanse  $1\frac{4}{12}$  inch.

*Hab.* Umballa, N.W. India. In coll. F. Moore.

**LEUCANIA ABDOMINALIS, n. sp.**

*Female.* Fore wing ochreous-white, with very pale ochreous-yellow lines between all the veins, a slightly darker shade below the cell and obliquely below the apex; a small black spot below the cell, two on the disk, and a marginal row of minute dots: hind wing ochreous-white on costal half, pale ochreous-brown on anal half. Underside ochreous-white, subcostal and median vein brown-speckled; hind wing sparsely brown-speckled, with a prominent blackish discocellular spot; both wings with a marginal row of distinct black dots. Body ochreous-white, abdomen above and beneath brown-speckled; palpi and legs above pale brownish ochreous.

Expanse  $1\frac{4}{12}$  inch.

*Hab.* Bengal (*Russell*). In coll. F. Moore.

**LEUCANIA DHARMA, n. sp. (Plate XXXVII. fig. 17.)**

*Female.* Near to *L. album*. Fore wing pale ochreous-brown, costal and posterior borders and oblique fascia below the apex paler; a pale brown line between the veins; veins whitish, the median and its branches to the transverse discal indistinct, black points most prominent; a black spot within end of the cell; a few black speckles on costal and posterior borders: hind wing and abdomen paler brown, whitish at the base. Underside uniformly paler and brown-speckled; fore wing with a black costal spot and indistinct transverse brownish fascia; hind wing with a transverse discal series of brown points, one on each vein, and discocellular lunular spot. Thorax grey, with black speckles; front of head, palpi, and legs above pale brown with darker speckles.

Expanse  $1\frac{1}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

**LEUCANIA ALBICOSTA, n. sp. (Plate XXXVII. fig. 10.)**

*Female.* Similar to same sex of *L. dharmā*, but paler-coloured: fore wing with the costal border, apical fascia, and posterior margin ochreous-white, the veins and lines between them not so prominent, the median vein being of the same uniform colour as the others; an indistinct blackish spot on the costa, and another spot below the cell. Underside—fore wing with discal area broadly brownish; hind wing brown-speckled, and with a prominent blackish discocellular spot and marginal row of dots. Thorax very pale and not speckled; palpi and legs above pale ochreous-brown and not speckled.

Expanse  $1\frac{4}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

**LEUCANIA CANARAICA, n. sp.**

*Female.* Fore wing pale whitish ochreous; veins whiter, with narrow ochreous-brown lines between each vein; an indistinct marginal row of minute black dots; hind wing white. Underside uniformly paler. Front of thorax banded with ochreous; palpi at sides and fore legs above brownish-ochreous.

Expanse 1 inch.

*Hab.* Canara, S. India (*Ward*). In coll. F. Moore.

**LEUCANIA UNIFORMIS, n. sp.**

Fore wing ochreous-brown, with chestnut-brown streaks between the veins; all the veins ochreous-white; an indistinct discal series of black spots, a spot below the cell, and a marginal row of dots; hind wing ochreous-white, veins and marginal line brownish. Underside pale ochreous-white, suffused with pale brown; a marginal row of black spots. Body pale, and legs ochreous-brown.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.

**LEUCANIA PROMINENS, n. sp.**

Fore wing pale pinkish ochreous-brown, with a brighter chestnut-brown fascia extending from base through the cell and below the apex; the base of the costal border and obliquely below the apex whitish ochreous; costal and median veins white, the latter most prominent; an indistinct costal dot and a few speckles near the apex, a discal series of black points, and a marginal row of black dots; hind wing pale brown, veins darker, with a dusky discocellular spot. Cilia pale ochreous. Underside pale pinkish ochreous: fore wing with the discal area from the base dusky brown; some black costal speckles and a marginal row of dots; hind wing with black-speckled marginal row of dots and a large discocellular spot.

Expanse  $1\frac{4}{10}$  inch.

*Hab.* Darjiling; Cherra (*Austen*). In coll. F. Moore.

**LEUCANIA GRISEOFASCIATA, n. sp.**

Fore wing very pale yellowish ochreous, with a pale reddish-ochreous fascia extending from the base to exterior margin, and including a brownish-grey fascia below the cell; median vein and its middle branch white, the upper branch also greyish white; a black-speckled spot at lower end of cell, a black streak below base of the cell; a few black speckles along base of costal border, about the disk and hind border, and a slightly distinct series across the disk; a marginal row of slight black dots; cilia brownish: hind wing pale ochreous-brown, palest at the base. Thorax fringed with black and grey in front; base of abdomen with white hairs; palpi at the side and legs above black-speckled.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

*LEUCANIA LANCEATA*, n. sp.

Fore wing pale yellowish ochreous, with dark brownish ochreous lines between the veins, which are somewhat confluent through the middle, and form an indistinct interrupted fascia below the cell to exterior margin below the apex; a suffused blackish spot outside end of the cell; the cell-streak broad, nearly white, and crossed near its inner end by a lanceolate black mark, the cell beyond bordered beneath by a slight black line; some minute black speckles on the costal border; a distinct series of black spots curving across the disk, and a marginal row of points: hind wing pale whitish ochreous, with brownish ochreous broad outer border, and a marginal row of black points. Body and legs brownish ochreous.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Ceylon. In coll. F. M. Mackwood.

Allied to *L. decissima*, Walker, but is a smaller insect.

Genus *SIMYRA*, Ochs.*SIMYRA CONSPERSA*, n. sp.

*Female.* Upperside—fore wing pale whitish ochreous, numerous covered with minute brown speckles: hind wing white. Thorax ochreous, abdomen paler. Underside uniformly pale ochreous-white. Near *S. confusa*.

Expanse  $1\frac{7}{12}$  inch.

*Hab.* Manpuri, N.W. India (*Horne*); Calcutta (*Atkinson*). In coll. F. Moore.

*NORRACA*, n. g.

*Male.* Fore wing very long, narrow, apex slightly falcate, exterior margin very convexly oblique, posterior margin slightly lobed near the base; costal vein long, extending to two thirds of the wing; subcostal running close to costal, first branch emitted at two thirds from the base, second trifurcate, third from one half of second, fourth very short and emitted near the apex, fifth from end of the cell; discocellulars concave; upper radial from end of the cell, lower radial from middle of discocellulars; two upper median branches emitted immediately before end of the cell, third at some distance before its end; submedian short. Hind wing triangular, apex slightly produced, exterior margin very oblique, abdominal margin short; costal vein extending to the apex, subcostal to nearly end of the cell running close to the costal, two subcostal branches emitted from just beyond end of the cell; discocellular obliquely concave; cell broad; radial from middle of discocellular; two upper median branches from immediately before end of the cell, lower at from some distance before its end; submedian and internal vein extending to anal angle. Body long, somewhat slender; palpi short, slender, pilose, apex short; legs densely pilose, antennæ setose. Allied to *Ipana*.

*NORRACA LONGIPENNIS*, n. sp.

*Male.* Fore wing pale yellowish ochreous, duller-coloured below

the apex; with a very indistinct recurved discal transverse series of small black spots and outer recurved speckled fascia; a few indistinct black spots on cilia just below the apex: hind wing pale straw-yellow. Underside uniformly paler ochreous. Body pale yellowish ochreous; front and middle legs brighter ochreous.

Expanse  $1\frac{7}{8}$  inch.

*Hab.* Penang. In coll. F. Moore.

### Genus *AXYLIA*, Hübner.

#### *AXYLIA RENALIS*, n. sp.

Fore wing pale reddish-ochreous, with the costal border iron-grey; orbicular and reniform spot very prominent, black-lined, and centred with iron-grey; veins speckled with grey and black; a black fascia extending through the cell to outer margin; a black subbasal transverse sinuous double line, some discal spots, and a marginal row of dentate spots: hind wing pale brownish white, darker along costal border. Thorax black above, ochreous laterally and in front; abdomen pale brown; palpi black, tipped with ochreous; legs black, fore and middle tibiæ ochreous.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* Sind valley, Kashmir; Solun, Punjab. In coll. F. Moore. Allied to the European *A. putris*.

#### *AXYLIA FASCIATA*, n. sp.

Fore wing pale yellowish ochreous, with a longitudinal blackish fascia through the lower part of the cell to outer margin, the area below it being slightly greyish; a black streak below the cell; median veins grey-speckled, the second upper median branch white with black intervening lines; discal area above the fascia and the posterior margin suffused with reddish ochreous, and white below the fascia; orbicular and reniform spots formed of interrupted black lines, with an almost confluent black interspace; some indistinct black dots obliquely across the disk: hind wing ochreous-white, outer border slightly dusky, marginal line black.

Expanse  $1\frac{2}{10}$  inch.

*Hab.* Solun, Punjab; Ceylon. In coll. F. Moore.

#### *AXYLIA IRRORATA*, n. sp.

Fore wing pale yellowish ochreous, profusely black-speckled, most thickly and somewhat confluent through the lower end of the cell to the exterior margin; orbicular and reniform spot imperfectly formed of black speckles, with an intervening black spot; an indistinct discal row of blackish speckles and marginal series of dots: hind wing white, with brownish border and marginal dots. Body, palpi, and legs pale ochreous; thorax and palpi black-speckled.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.



*AXYLIA ALBIVENA*, n. sp.

Fore wing pale straw-yellow; median vein and middle branch white; a slight black-speckled fascia extending below the cell to the outer margin; orbicular and reniform spots ill-defined by black speckles and with a more distinct black intervening spot; a few black speckles scattered irregularly over the wing, and a marginal row of black dots: hind wing white, with a marginal row of black dots.

Expanse  $1\frac{1}{16}$  inch.

*Hab.* Solun, Punjab. In coll. F. Moore.

## Fam. APAMIIDÆ.

Genus *HYDRÆCIA*.*HYDRÆCIA KHASIANA*, n. sp. (Plate XXXVII. fig. 5.)

*Male.* Fore wing dull reddish brown, washed with purple-grey, with a brighter brown pale-bordered subbasal sinuous line, a large orbicular and reniform spot, and discal sinuous line; outer border also brighter and traversed by a pale waved line; median and submedian veins dusky brown: hind wing cinereous-white, with pale brown veins and indistinct marginal fascia. Thorax, head, palpi, and legs reddish brown, grey-speckled; abdomen paler. Underside much paler.

Expanse  $1\frac{6}{19}$  inch.

*Hab.* Khasia Hills, E. Bengal. In coll. Dr. Staudinger.

Near to *H. petasitis*.

## Fam. XYLOPHASIIDÆ.

Genus *RHIZOGRAMMA*, Lederer.*RHIZOGRAMMA INEXTRICATA*, n. sp.

*Male and Female.* Fore wing brownish grey, veins speckled with black and white; a transverse discal, sharply sinuous, white-bordered black line; some pale-bordered black streaks from the base below the cell, oblique short streaks on middle of the costa; a brown interrupted marginal fascia from the apex, the hind margin broadly grey-brown; orbicular mark represented by a long brown double streak, which crosses and breaks up an indistinctly formed reniform mark; a marginal row of black points: hind wing white at the base, with a pale brownish marginal band. Thorax brownish grey, with black-speckled collar and tegulæ; palpi brown, tip ochreous; legs grey, brown-speckled; abdomen grey-brown.

Expanse  $2\frac{1}{8}$  inches.

*Hab.* Dalhousie, N.W. Himalaya; Solun, Punjab. In coll. F. Moore.

Allied to *R. indica* (*Xylophasia indica*), Moore, and to the European *R. petrorrhiza*, Bork.

*SASUNAGA*, n. g.

Fore wing very narrow; costa almost straight; exterior margin oblique, convex, waved; posterior margin convex at the base; costal

vein extending two thirds the margin; first subcostal branch emitted at two thirds and second at one fourth before end of the cell, third branch one third, and fourth at one half from below second, fifth curving from end of the cell and free from the third; upper radial from end of the cell, discocellular obliquely concave, lower radial from near its middle; cell long, very narrow at the base; upper median branch from angle above end of the cell, middle branch from the end, lower at one fourth before the end; submedian curved downward near the base. Hind wing very broad, triangular; costa convex near the base, apex convex; exterior margin very oblique, waved; abdominal margin long; costal vein slightly arched near the base, extending to apex; two subcostal branches from end of the cell; discocellular slender, concave; radial very slender, emitted from below middle of discocellular; cell short, broad; two upper median branches from end of the cell, lower at one fourth before the end; submedian and internal vein straight, the latter extending to anal angle. Thorax robust; abdomen long, somewhat slender, and extending beyond the wing; palpi ascending, slender, second joint squamose, reaching to vertex, third joint half its length, cylindrical; femora pilose beneath, tibiæ tufted above; antennæ setose.

Near to *Dipterygia*. The American genus *Magusa* (Walker, Catal. Lep. Het. B. M. xi. p. 762) is a very closely allied form.

#### SASUNAGA TENEBROSA.

*Hadena tenebrosa*, Moore, P. Z. S. 1867, p. 59.

Fore wing dark brown, with short ochreous-bordered blackish costal streaks, lengthened longitudinal upper discal and less distinct lower discal streaks, and oblique streaks below the cell, the latter bordered by an ascending lower discal, curved, duplex sinuous pale-pointed black line, and a submarginal less distinct pale-pointed sinuous line, the ochreous borders palest before the apex; orbicular spot small, ochreous, with black border, reniform spot less distinct; hind wing glossy cupreous-brown, palest at the base; cilia cinnamon-brown. Thorax dark brown, black-speckled; abdomen pale brown, tuft ochreous; palpi and legs ochreous, brown-speckled; tarsi with blackish bands.

Expanse, ♂  $1\frac{4}{8}$ , ♀  $1\frac{5}{8}$  inch.

*Hab.* Darjiling. In coll. F. Moore and Dr. Staudinger.

*Remark.* Some specimens of this insect are pale ochreous-brown, with less distinct darker brown and black streaks, and also show a darker subapical costal patch.

#### Genus NEURIA, Guénée.

NEURIA SIMULATA, n. sp. (Plate XXXVIII. fig. 1.)

*Female.* Allied to *N. separata*; differs in its larger size and paler colour, the fore wing having less distinct transverse sinuous markings, orbicular and reniform spots, and a shorter and broader dentate mark below the cell.

Expanse 2 inches.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*NEURIA INCISA*, n. sp.

*Male and Female.* Fore wing dark ochreous-brown, with a transverse basal, an antemedian, and a postmedian sinuous black-bordered ochreous-yellow line; the median vein and its lower branch, broadly to the disk, and the discal borders of the other veins pale ochreous-yellow; a distinct submarginal and a posterior marginal yellow line; a marginal black dentated line; orbicular spot small, oblique, pale-bordered; reniform spot large and extending below the cell, pale-bordered, the intervening spaces black; some pale-bordered black streaks on the costa; a black broad conical mark below the cell; cilia with white-tipt pale streaks; hind wing and abdomen pale brown. Thorax, head, palpi, and legs above dark ochreous-brown, legs with pale ochreous bands.

Expanse  $1\frac{5}{12}$  inch.

*Hab.* Solun, Punjab; Umballa; Dalhousie (N.W. Himalaya). In coll. F. Moore.

*NEURIA SIMILLIMA*, n. sp.

A smaller insect than *N. incisa*. Fore wing of a dark purple-brown; the markings similar, but the transverse basal, antemedian, and postmedian sinuous lines, the orbicular spot, and costal streaks are greyish purple, the median branch, the submarginal line, the posterior border, and the reniform only being ochreous-yellow: hind wing pale purplish cinereous-brown, the base being whitish. Thorax, palpi, and legs dark purple-brown, legs with pale bands.

Expanse  $1\frac{5}{12}$  inch.

*Hab.* Solun, Punjab. In coll. F. Moore.

Genus *THALPOPHILA*, Hübner.*THALPOPHILA INDICA*, n. sp.

Fore wing rufous-brown, basal and discal areas speckled with black and grey scales; crossed by a basal, antemedian, and a postmedian black-bordered rufous sinuous double line, the two latter greyish hindward, and a submarginal rufous lunular line; orbicular and reniform marks black-lined, and a black quadrate mark below the cell; hind wing yellow, with uniformly inner-margined brown exterior band. Thorax, head, palpi, and legs rufous-brown; abdomen yellowish brown.

Expanse  $1\frac{5}{10}$  inch.

*Hab.* Masuri, N.W. Himalaya. In coll. F. Moore.

Near to European *T. texta*.

*THALPOPHILA CALLOPISTRIOIDES*, n. sp.

Fore wing dark rufous-brown, veins pale-lined; black-speckled; crossed by a prominent whitish black-bordered zigzag basal line, a waved convex antemedian line, and a lunular recurved postmedian line; orbicular and reniform marks and oblique costal streaks above them white-lined; a submarginal acutely sinuous white line, and marginal black lunules with white borders; a small discocellula

white spot at lower end of the cell: hind wing golden-yellow, with broad cupreous-brown marginal band. Thorax, head, palpi, and legs above dark rufous-brown; abdomen golden-yellow, with brownish tip.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* N. India. In coll. F. Moore.

Genus APAMEA, Ochs.

APAMEA CUPRINA, n. sp. (Plate XXXVIII. fig. 2.)

Allied to *A. leucostigma*. Fore wing dark cupreous-brown, with indistinct grey transverse sinuous fasciæ; costal and median veins grey-speckled; orbicular and reniform marks grey, the latter also black-speckled: hind wing pale cupreous-brown. Thorax, palpi, and legs above dark brown; abdomen ochreous-brown.

Expanse  $1\frac{5}{10}$  inch.

*Hab.* Sikkim (*Blanford*, 1870). In coll. Dr. Staudinger.

APAMEA PANNOSA, n. sp.

Fore wing dark ferruginous-brown, with a pale whitish-ochreous sinuous patch at the apex and diffused patches along the posterior border; a transverse subbasal, antemedian, and a postmedian, pale-ochreous centred, black, double sinuous lines; orbicular and reniform spots black-lined with pale inner border and ferruginous centre; an indistinct submarginal pale sinuous line with black points: hind wing and abdomen cinereous-brown, darkest externally. Thorax, palpi, and legs above dark ferruginous, legs with black bands.

Expanse  $1\frac{7}{10}$  inch.

*Hab.* Nilgiris, S. India; Ceylon. In coll. F. Moore.

APAMEA LATIFASCIATA, n. sp.

Fore wing dark ferruginous greyish brown, with the discal area and posterior margin broadly pale ochreous; a transverse antemedian and postmedian sharply-sinuous black lines bordering the dark ferruginous and forming a median band; orbicular and reniform spots pale-centred: hind wing pale cinereous. Body ferruginous; thorax, palpi, and legs dusky ferruginous, legs with black bands.

Expanse  $1\frac{3}{8}$  inch.

*Hab.* Manpuri, N.W. India (*Horne*). In coll. F. Moore.

APAMEA MUCRONATA, n. sp. (Plate XXXVIII. fig. 8.)

*Male and Female.* Fore wing pale ferruginous, with a broad medial transverse darker ferruginous band bordered by an antemedian and a postmedian double black sinuous lines, the latter with very long outer discal points; orbicular and reniform spots black-lined and pale-centred; a ferruginous black-speckled spot and some contiguous streaks at base of the wing; some streaks on costal border, and a marginal irregular fascia bordered by the black lunular points with pale tips: hind wing and abdomen pale pinkish brown. Thorax,



palpi, and legs pale ferruginous; palpi laterally and legs above slightly brown-streaked. Near to *A. undicilia*, Walker.

Expanse  $1\frac{4}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*APAMEA STRIGIDISCA*, n. sp. (Plate XXXVIII. fig. 9.)

*Male.* Fore wing dark ferruginous; costal border, some basal streaks, and discal area paler ferruginous; a transverse antemedian and postmedian sinuous pale-bordered black lines; orbicular and reniform spots black-lined, with a pale inner border and blackish centre; a black conical mark below the orbicular spot; a submarginal transverse pale line, the middle portion zigzag and longitudinally crossed by a black line between the median veins; base of cell and posterior margin black-streaked; submedian vein black; some black streaks on the costal border, and a marginal waved line with a row of black points: hind wing pale ferruginous-brown. Body ferruginous; collar and tegulæ, front of head, palpi laterally, and bands on legs black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

The markings in this species are somewhat similar to those in *Mamestra adjusta*, Esper.

*APAMEA BASALIS*, n. sp.

Fore wing dusky ferruginous-brown; veins broadly grey-speckled, with intervening cupreous-brown longitudinal streaks; two indistinct subbasal and a median transverse black sinuous line; orbicular spot black-lined; reniform spot pale ochreous and ill-defined; discal and apical areas with pale ochreous longitudinal streaks; a marginal row of black dentate spots: hind wing pale brownish-ochreous, with darker-brown marginal band. Thorax, head, palpi, and legs above dusky ferruginous-brown, grey-speckled; abdomen brownish ochreous, with brown dorsal tufts.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

*APAMEA NUBILA*, n. sp. (Plate XXXVIII. fig. 10.)

*Male and Female.* Fore wing dark purple-brown, washed with chalybeate-grey, crossed by a subbasal, antemedian, postmedian, and a submarginal sinuous black-bordered grey line; orbicular and reniform spots greyish, their interspace and a streak below base of the cell, a mark below the orbicular spot, and a streak above posterior angle black: hind wing and abdomen pale ochreous-brown. Thorax dark purple-brown; palpi and legs ochreous-brown, the latter with black bands.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Genus MAMESTRA, Ochs.

## MAMESTRA CULTA, n. sp.

Fore wing dark purple-brown or plum-colour, suffused with grey, crossed by a subbasal and an antemedian black double zigzag line, an indistinct discal series of black points, a submarginal black-bordered yellow-speckled dentated line, and a marginal row of dentate lunules; orbicular and reniform spots black-bordered; a black lunule below the cell; the posterior end of subbasal line, the lunule below the cell, the posterior end of reniform spot, and the tuft near base of posterior margin streaked with pure yellow: hind wing and abdomen pale greyish purple-brown. Thorax, palpi, and legs dark purple-brown, grey-speckled; a black collar across thorax.

Expanse  $2\frac{1}{8}$  inches.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

## MAMESTRA STOLICZKÆ.

*Mamestra stoliczkæ*, Felder, Novara Voy. Lep. iv. pl. 109. fig. 32 (1872).

*Male and Female.* Fore wing dusky olive-green, crossed by a subbasal, an antemedian, a postmedian, and a submarginal black-bordered sinuous grey line; discal area and outer margin also grey; orbicular and reniform spots grey- and black-bordered; a black-speckled mark below the cell; three white or pale spots on costal edge before the apex, and a marginal black-pointed lunular line: hind wing cinereous olive-brown, palest at the base. Thorax dusky olive-green, grey- and black-speckled; palpi and legs brown, grey- and black-speckled; legs with pale bands.

Expanse  $1\frac{7}{8}$  inch.

*Hab.* Dalhousie, N.W. Himalaya; Sind valley, Kashmir. In coll. F. Moore.

Nearest to *M. serratilinea*, and quite a distinct species from *M. brassicæ*, which latter also occurs in the N.W. Himalayas.

## Genus PROSPALTA, Walker.

## PROSPALTA LEUCOSPILA.

*Prospalta leucospila*, Walker, Catal. Lep. Het. B. M. xiii. p. 1114 (1857).

*Female.* Nearest to *P. stellata*. Differs in the fore wing being of a blacker brown, and having the white spots within the cell larger, the central (or orbicular) spot not broken up, the reniform cluster more widely spread, the second cluster below it being obsolete; the costal, discal, exterior margin, and cilia spots are also larger; there is also a distinct white spot below the orbicular, and some spots on middle of posterior margin; cilia of fore wing with two rows of white spots, the cilia of hind wing with one row and an outer border. Thorax, palpi, and legs blackish brown; palpi and legs speckled and banded with white, the thorax with white speckles and a large lower dorsal spot.

Expanse  $1\frac{5}{8}$  inch.

*Hab.* Darjiling. In coll. F. Moore.

Genus *ILATTIA*, Walker.*ILATTIA MONILIS*, n. sp. (Plate XXXVIII. fig. 11.)

Fore wing yellowish ochreous, crossed by a slender indistinct whitish basal, antemedian, and postmedian sinuous bands, a more distinct white submarginal macular band, and a marginal row of black white-bordered dots; some whitish streaks on the costal edge, a prominent white spot at base of the cell, and white bead-bordered orbicular and reniform marks: hind wing pale brownish ochreous, with indistinct transverse narrow discal band and discocellular streak. Thorax and palpi ochreous; abdomen and legs paler, tarsi with brownish bands.

Expanse 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*ILATTIA CERVINA*, n. sp. (Plate XXXVIII. fig. 12.)

*Male and Female.* Fore wing greyish brown, crossed by an indistinct darker-brown zigzag antemedian and a recurved postmedian line, the latter bordered externally by indistinct brown points; a short subbasal line, and a submarginal pale-bordered fascia; orbicular spot small and circular, ochreous-brown; reniform spot partly ochreous-brown and yellow, bordered with white speckles above and below: hind wing pale greyish brown.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*ILATTIA CALAMISTRATA*, n. sp.

Fore wing golden brown, crossed by an antemedian row of pure white dots, and a postmedian waved double row of white lunular spots; orbicular spot entire and pure white; reniform spot formed by an imperfect white figure of 8; some indistinct white spots on the costal edge, and a very indistinct submarginal dentate white line: hind wing and abdomen pale golden yellow. Head and thorax golden yellow; palpi and legs above blackish.

Expanse 1 inch.

*Hab.* Khasia Hills (*Austen*). In coll. F. Moore.

Genus *CELÆNA*.*CELÆNA SIKKIMENSIS*, n. sp. (Plate XXXVIII. fig. 16.)

*Male.* Fore wing brown, with indistinct black antemedian and postmedian transverse pale-bordered sinuous line, the interspace blackish-streaked; a submarginal series of longitudinal black streaks disposed between the veins and crossed by a whitish-speckled lunular line; orbicular and reniform spots white, the latter most prominent: hind wing paler brown, with paler discal and submarginal fascia. Body brown; palpi ochreous-brown; legs with pale bands.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Sikkim (*Blanford*). In coll. Dr. Staudinger.

## Fam. CARADRINIDÆ.

## Genus CARADRINA, Ochs.

## CARADRINA ARENACEA, n. sp.

Fore wing pale greyish ochreous, with an indistinct transverse sinuous brown line and three discal lines, the outer line bordered below the apex with ochreous-yellow; reniform spot brownish, speckled with white and ochreous-yellow; a small indistinct brown orbicular spot; some black short streaks on the costa, and a marginal row of dentate points; hind wing whitish ochreous, with pale-brown border. Body whitish ochreous; thorax with a few blackish speckles; palpi blackish laterally, white at tip; fore and middle legs with blackish speckles and tarsal bands.

Expanse  $1\frac{3}{12}$  inch.

*Hab.* Masuri (*Lang*), Darjiling. In coll. F. Moore and Dr. Staudinger.

## CARADRINA DELECTA, n. sp. (Plate XXXVIII. fig. 15.)

Fore wing pale greyish ochreous, with an indistinct black-speckled subbasal and three median transverse sinuous lines, and an outer discal row of points; a submarginal transverse straight pale line; orbicular and reniform spots black-speckled: hind wing ochreous-white. Body ochreous-grey; palpi and legs above brown-speckled.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Allied to *C. kadeni*.

## DADICA, n. g.

*Male.* Fore wing with straight costa; apex acute; exterior margin short, slightly oblique and convex; posterior margin long; first subcostal branch emitted at one half from the cell, second at one fourth before its end, trifurcate, fifth from end of the cell, curved upward and touching third near its base; cell narrow; discocellular short, concave; radial from upper end of cell; lower radial and upper median branch from angles above end of the cell, second from angle at its end, third at one third before its end. Hind wing short, triangular; cell short; subcostal vein fringed with plumose scales to end of the cell; two subcostal branches from end of the cell; discocellular bent beyond the middle, radial from below the angle; two upper median branches from end of the cell. Body long, somewhat slender, with a large anal tuft; palpi porrect, second joint long, squamose, third joint short; legs pilose beneath; antennæ setose.

Allied to the genus *Radinacra*, Butler, Types of Lep. Het. B. M. ii. p. 26.

## DADICA LINEOSA, n. sp.

Fore wing brownish ochreous, with a transverse slightly curved subbasal and a discal narrow brown line, a less distinct basal waved line, a median fascia, and a waved submarginal line; a white reniform spot: hind wing pale vinous-brown, with pale ochreous apical



border. Underside as above; lines on fore wing obsolete. Body brownish ochreous, anal tuft brighter ochreous; antennæ and legs above dark brown, with pale ochreous bands.

Expanse  $1\frac{4}{10}$  inch.

*Hab.* Punjab hills. In coll. F. Moore.

#### Genus ACOSMETIA, Stephens.

ACOSMETIA NEBULOSA, n. sp. (Plate XXXVIII. fig. 13.)

Upperside pale ochreous-brown: fore wing darkest, with several transverse indistinctly darker waved narrow fasciæ; some pale spots on costal edge near the apex. Underside paler.

Expanse 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

ACOSMETIA NIGRESCENS, n. sp.

Upperside dark brown: fore wing somewhat greyish brown, with an indistinct black spot in middle of the cell, a streak at its end, a transverse discal waved line, and a broad outer pale band, which is pale-bordered above the posterior angle and is continued along the posterior border: hind wing with blackish-brown outer border. Thorax above blackish brown. Underside uniform brown.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Bombay. In coll. F. Moore.

#### Fam. NOCTUIDÆ.

#### Genus AGROTIS, Ochs.

AGROTIS QUADRISIGNA, n. sp.

*Male and Female.* Fore wing grey, crossed by a black subbasal double sinuous line, an antemedian line, an irregular waved postmedian line, and a submarginal series of ochreous spots, bordered on both sides by a black dentate point, a marginal row of minute black dots, orbicular and reniform marks black-lined, a broad quadrate black dentate mark below the orbicular spot; hind wing and abdomen paler grey, whitish at the base. Thorax, palpi, and legs grey, with black speckles; tarsi with black bands.

Expanse  $1\frac{4}{10}$  inch.

*Hab.* Solun, Punjab; Deyra. In coll. F. Moore.

Allied to *A. labyrinthica*, Staudinger, and to *A. placida*.

AGROTIS COSTIGERA, n. sp.

*Male and Female.* Fore wing dark purple-brown, the basal and discal areas suffused with grey; costal border pale purplish ochreous; a transverse basal, antemedian, and a postmedian sinuous black pale-centred line; orbicular and reniform spots black-lined, dark-centred, and with a pale ochreous inner border, the reniform slightly angled at the upper end of its inner border; an oval black mark below the cell; a pale ochreous submarginal line, with irregular alternate purple-brown and reddish inner border; a marginal row

of distinct black dentate marks ; some pale spots on costa near apex ; hind wing cinereous-brown, palest at the base. Thorax and palpi dark purple-brown, abdomen and legs greyish brown, legs with brown bands.

Expanse, ♂  $1\frac{4}{12}$ , ♀  $1\frac{6}{12}$  inch.

*Hab.* Solun, Punjab ; Cherra Punji, Assam. In coll. F. Moore and Dr. Staudinger.

Allied to *A. christophi*, Staudinger.

*AGROTIS JUNCTURA*, n. sp.

*Male and Female.* Fore wing pale purplish grey, the median area below the cell pale purplish red ; two subbasal grey-bordered black streaks extending obliquely from within the cell to base of the submedian vein, with blackish lower interspace ; orbicular spot large, outwardly oblique, grey ; reniform spot also large, black-lined, and extending below the cell, centre brown-streaked, interspaces black ; a black conical mark below the orbicular spot ; an indistinct black transverse discal sinuous line and outer row of points ; a marginal greyish-brown fascia terminating before the apex in a black streak ; hind wing pale purplish cinereous. Thorax purple-grey ; collar, front of head, palpi, and legs brown-speckled ; abdomen cinereous-brown, tuft in male ochreous.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

Allied to *A. hastifera*, Donzel.

*AGROTIS MODESTA*, n. sp.

*Female.* Greyish cream-colour : fore wing with an indistinct black subbasal, antemedian, and a postmedian sinuous double line ; an orbicular and reniform black-lined spot, a short narrow conical mark below the cell, and a marginal row of dots. Body and legs greyish, tarsal bands brown.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Cashmir. In coll. F. Moore.

Nearest allied to, but quite distinct from, *A. aquilina*.

*TIRACOLA*, n. g.

Fore wing long, narrow, costa slightly arched towards the end, apex acute ; exterior margin oblique, convex, and sinuous ; cell long ; first subcostal branch emitted at half length of the cell, second at three fourths its length, trifurcate, third emitted at one third beyond base of the second, and fourth at about one half from base of second, fifth from end of the cell and touching the third near its base ; discocellular deeply concave, upper radial from angle close to upper end of the cell, lower radial from angle near lower end of the cell ; upper median from angle above and middle median from end of the cell, third at one third before its end ; submedian concave near its base. Hind wing triangular, apex convex ; exterior margin oblique, recurved, slightly sinuous ; cell short ; two subcostal branches from end of cell ; discocellular very slender, angled inward in the middle, a

slender radial from the angle; two upper median branches from lower end of the cell, third branch at half before its end. Body stout, abdomen long; palpi short, ascending, compactly clothed, second joint thick, third joint short; legs compactly pilose above; antennæ setose. Type *T. plagiata*.

**TIRACOLA PLAGIATA.**

*Agrotis plagiata*, Walker, Catal. Lep. Het. B. M. xi. p. 740 (1857).

*Agrotis plagifera*, Walker, l. c. p. 741.

*Hab.* Ceylon, S. India, Darjiling.

**TIRACOLA SPECTABILIS.**

*Agrotis spectabilis*, Walker, Catal. Lep. Het. B. M. xxxii. p. 704 (1865).

*Hab.* Australia.

**Genus GRAPHIPHORA, Ochs.**

**GRAPHIPHORA FLAVIRENA, n. sp. (Plate XXXVIII. fig. 3.)**

Allied to *G. neglecta*, Hübner. Fore wing dark ferruginous, crossed by an indistinct brown-bordered, pale, waved antemedian and a postmedian line, a median brown fascia angled at lower end of the cell; orbicular spot obsolete; reniform spot narrow, yellowish, and dusky at its lower end: hind wing ferruginous-brown. Body and legs ferruginous.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

**GRAPHIPHORA NIGROSIGNA, n. sp. (Plate XXXVIII. fig. 4.)**

Fore wing brown-ochreous, crossed by indistinct basal, antemedian, and postmedian zigzag brown duplex lines, and a waved submarginal pale line; veins across the disk with indistinct black-pointed pale spots; orbicular and reniform marks paler, with brown border, lower lobe of reniform dusky; a prominent black triangular spot below the orbicular mark: hind wing and abdomen pale brownish ochreous. Thorax ochreous; second joint of palpi at the side and legs above dark brown, third joint of palpi and tip of second ochreous.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Tonglo, Sikkim. In coll. Dr. Staudinger.

**Genus MEGASEMA<sup>1</sup>, Hübner.**

**MEGASEMA CINNAMOMEA, n. sp. (Plate XXXVIII. fig. 6.)**

Fore wing dull cinnamon-brown, with an indistinct darker basal, subbasal, and a discal transverse sinuous line; a more distinct outer discal pale-bordered irregular line; a large pale-bordered orbicular and reniform spots, their interspace within the cell, and a transverse

<sup>1</sup> Type *M. triangulum*, Hufn.

median fascia darker brown; outer margin also darker brown, with a pale-bordered lunular line: hind wing paler. Underside pale, brighter cinnamon-brown. Thorax, head, palpi, and legs above dark cinnamon-brown.

Expanse  $1\frac{7}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

#### Genus OCHROPLEURA, Hübner.

##### OCHROPLEURA CONSANGUINEA, n. sp.

*Male and Female.* Fore wing dark cupreous-brown, base and exterior border suffused with grey; costal border pale ferruginous; a short subbasal pale streak with black border, an oblique antemedian waved black double line, a postmedian, less distinct, double sinuous line, and a submarginal pale lunular line; orbicular and reniform spots grey, with black interspaces; an indistinct conical greyish-centred mark below the cell: hind wing brown. Thorax cupreous-brown; collar and palpi ferruginous edged with black; abdomen brown; legs blackish with pale bands.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Solun, Punjab; Dalhousie, N.W. Himalaya. In coll. F. Moore.

Allied to *O. renalis*, from which it is distinguishable by its smaller size, straighter and more oblique antemedian line, and the postmedian line being nearer the renal spot.

#### Genus HERMONASSA, Walker.

##### HERMONASSA CHALYBEATA, n. sp. (Plate XXXVIII. fig. 17.)

Smaller than *H. consignata*. Fore wing dark brown, with indistinctly darker markings, which are all bordered with chalybeous-grey speckles: hind wing pale cinereous-brown. Underside cinereous-brown.

Expanse 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

##### HERMONASSA SINUATA, n. sp. (Plate XXXVIII. fig. 5.)

Near *H. cuprina*. Fore wing paler and of a brighter cupreous-brown, the interspace between the transverse basal and subbasal lines wider, the latter more acutely sinuous, and its lower end almost touching that of the discal line, which latter is also more sinuous: hind wing very pale brown. Underside also much paler.

Expanse  $1\frac{5}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

#### Fam. ORTHOSIIDÆ.

##### Genus ORTHOSIA, Ochs.

##### ORTHOSIA RECTIVITTA, n. sp.

Fore wing mottled with greyish ochreous and dark brown, posterior and exterior areas more uniformly brown; a transverse sinuous



antemedian and a straight postmedian pale line with black-speckled borders; a submarginal zigzag pale-bordered black-speckled fascia; orbicular and reniform spots pale, with black-speckled border; a marginal row of black dots: hind wing brown; cilia pale ochreous-brown. Thorax, and head grey-speckled; palpi with broad brown lateral band; legs dark brown, with ochreous speckles and tarsal bands.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling (*Russell*). In coll. F. Moore and Dr. Staudinger.

Fam. COSMIIDÆ.

Genus COSMIA, Ochs.

COSMIA HYPENOIDES, n. sp. (Plate XXXVIII. fig. 19.)

*Male and Female.* Fore wing dark purple-brown, crossed by an outwardly oblique antemedian, a median, and an outwardly-augled postmedian transverse pale-bordered black line, a black dot at base of cell, a submarginal indistinct lunular line, and a marginal black line; orbicular and reniform spots very indistinct: hind wing and abdomen dull brown. Thorax purple-brown; palpi grey, with broad black band on second joint; fore and middle legs with blackish bands.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Parinath Hill (Bengal). In coll. Dr. Staudinger.

Fam. HADENIDÆ.

Genus DIANTHECIA, Boisd.

DIANTHECIA CONFLUENS, n. sp. (Plate XXXVIII. fig. 20.)

Fore wing dark purple-brown, crossed by a subbasal black-bordered pale-ochreous sinuous line, a similar antemedian and a postmedian narrow waved line, and a submarginal brown-bordered pale line; orbicular and reniform spots pale ochreous with brown centre; the two lower median branches pale ochreous to the postmedian line; a black dentate mark below the cell; a marginal row of dentate lunules; cilia brown: hind wing greyish dusky-brown, palest at base, and with a pale-bordered brown transverse discal line; cilia ochreous. Body and legs dark purple-brown, black-speckled.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Genus EUPLEXIA, Stephens.

EUPLEXIA DISTORTA, n. sp. (Plate XXXVIII. fig. 18.)

*Male and Female.* Fore wing black, with transverse distorted white bands, including an outer marginal sinuous bordered band: hind wing pale blackish-cinereous externally and whitish basally; cilia white. Thorax black, with white tegulæ, crest, and collar; abdomen blackish at tip; palpi black tipped with white; legs black, with white streaks and tarsal bands.

Expanse  $1\frac{3}{8}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Genus TRIGONOPHORA, Hübn.

## TRIGONOPHORA ALBOSIGNATA, n. sp.

Fore wing reddish ochreous, minutely speckled with purplish grey, crossed by an inwardly-oblique antemedian ochreous-white straight narrow band, a postmedian outwardly-oblique, sinuous, narrow band, both bands with indistinctly darker purple-red border; a submarginal zigzag pale-bordered denticulated red fascia; cilia purple-brown; orbicular and reniform marks formed by a purple-red line, the centre being yellowish ochreous, the reniform mark bordered externally by two upper and two lower white spots: hind wing purplish ochreous-brown, palest along the costal border. Thorax, palpi, and legs reddish ochreous, abdomen ochreous-brown.

Expanse  $1\frac{7}{8}$  inch.

Allied to *T. empyrea*, Hübn., of Europe.

*Hab.* Kussowlie, N.W. Himalaya. In coll. F. Moore.

## APPANA, n. g.

Fore wing somewhat short, costa straight, apex slightly pointed, exterior margin oblique, very slightly waved and convex; first subcostal branch emitted from half length of the cell, second at one fourth, trifurcate, third at one fourth, and fourth at one half from base of second, fifth from end of the cell, projecting upward and touching the third near its base; cell long; upper discocellular very short, lower bent in the middle; upper radial from angle near subcostal, lower radial and upper median from angles immediately above end of the cell, middle median from its end, lower median from one third before its end; submedian slightly recurved. Hind wing triangular, exterior margin convexly oblique and waved; two subcostal branches emitted from a short distance beyond end of the cell; discocellular obliquely concave, radial from near its lower end; two upper median branches from end of cell; submedian and internal veins long. Body moderate, abdomen extending beyond hind wing; palpi short, stout, squamose, third joint very short; antennæ setose; legs pilose beneath.

Allied to *Habryntis* (*H. scita*, Hübner).

## APPANA INDICA, n. sp.

*Phlogophora indica*, Moore, P. Z. S. 1867, p. 57.

Fore wing pale purplish ochreous, with a median transverse broad band of chestnut-brown, palest on the costa, and enclosing a paler orbicular and reniform spots, which are confluent below the cell; the band is narrow hindward and bordered on both sides by a narrow black line; two black-speckled transverse streaks and a contiguous black spot at base of the wing; a pale-yellow submarginal line; veins speckled with black and white: hind wing paler, with an indistinct darker discal and marginal bands. Thorax chestnut-brown, with white-fringed collar, abdomen paler; palpi and legs ochreous-brown.

Expanse  $1\frac{4}{10}$  inch.

*Hab.* Darjiling. In coll. F. Moore and Dr. Staudinger.

## Genus BERRHÆA.

*Berrhæa*, Walker, Catal. Lep. Het. B. M. xv. p. 1721 (1858).

Wings rather narrow; fore wing elongated, costa straight; apex slightly pointed; exterior margin oblique, scalloped; posterior margin recurved; costal vein extending to two thirds the margin, first subcostal branch emitted at half length of the cell, second trifurcate, emitted at one fourth before end of the cell, third at one fourth, and fourth at one half from base of second, fifth from end of the cell, curving upward and touching third near its base; discocellular slightly angled close to each end, deeply concave in middle, radials from its upper and lower angle; cell long, narrow; two upper median branches from angles at end of the cell, lower at one fourth before the end; submedian recurved: hind wing long, exterior margin convex, waved; abdominal margin short; costal vein extending to apex; two subcostal branches from end of the cell; discocellular obliquely concave, radial from near its lower end; two upper median branches from end of the cell, lower at one third before its end; submedian and internal veins straight. Body stout, abdomen extending beyond hind wing; palpi stout, broad, ascending, densely clothed with long scales, third joint short, squamose; legs densely pilose; antennæ very minutely pectinate in male.

Allied to *Trachea* (*T. atriplicis*).

## BERRHÆA AURIGERA.

*Berrhæa aurigera*, Walker, Catal. Lep. Het. B. M. xv. p. 1721 (1858).

Fore wing ochreous-brown, crossed by a pale ochreous, duplex, black-bordered zigzag antemedian line and a sinuous postmedian line; some black-bordered ochreous basal streaks, others on the costal border and middle of posterior border; a submarginal zigzag interrupted ochreous and brown fascia; a black marginal lunular line; orbicular and reniform marks ochreous, large and widely separated at their anterior ends, but joined by a lower streak, which extends below the cell and runs into a whitish ochreous quadrate spot: hind wing æneous-brown, the base being whitish cinereous. Thorax ochreous-brown; abdomen cinereous-brown; palpi brown; legs brown, with ochreous tarsal bands.

Expanse, ♂  $1\frac{7}{8}$ , ♀ 2 inches.

*Hab.* Darjiling (*Atkinson*). In coll. Dr. Staudinger.

## BERRHÆA MEGASTIGMA.

*Hadena megastigma*, Walker, Cat. Lep. Het. B. M. xxxiii. p. 738 (1865).

*Hab.* Darjiling.

## BERRHÆA ALBINOTA.

*Hadena albinota*, Moore, P. Z. S. 1867, p. 58.

*Hab.* Darjiling.

*BERRHÆA OLIVACEA*, n. sp.

Allied to *B. megastigma*; comparatively smaller: fore wing similarly marked, but with less prominent ochreous and black streaks, the submarginal zigzag ochreous line slender throughout its length, the orbicular and reniform marks slightly smaller: hind wing cupreous-brown, slightly paler at the base.

Expanse, ♂  $1\frac{3}{8}$ , ♀  $1\frac{6}{8}$  inch.

*Hab.* Darjiling. In coll. F. Moore and Dr. Staudinger.

Genus *HADENA*, Treits.*HADENA ADJUNCTA*, n. sp.

Fore wing purplish grey, crossed by a greyish-white-bordered, black, sinuous antemedian and a postmedian line, and a submarginal row of long black-bordered, grey, dentate marks; a marginal black lunular line; orbicular and reniform spots black-lined; a black zigzag streak at base of wing, and a distinct black forked bar below the cell joining the ante- and postmedian lines, below which the area is iron-grey: hind wing and abdomen pale brown. Thorax purple-grey, black- and white-speckled; first and second joints of palpi brown- and grey-speckled, third joint ochreous; legs brown, grey-speckled, and with ochreous tarsal bands.

Expanse  $1\frac{7}{8}$  inch.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

Near to the European *H. satura*.

*HADENA SIDERIFERA*, n. sp.

Fore wing brownish grey, crossed by a basal, antemedian, and a postmedian double zigzag black line, a submarginal sinuous pale yellowish line with black inner points, and a marginal row of minute black points; orbicular spot black-lined; reniform spot composed of a large white quadrate spot, bordered at the upper and lower outer ends by two minute white spots, and on the inner side by a black pale-bordered line; a quadrate black mark below the orbicular spot: hind wing greyish brown.

Expanse  $1\frac{5}{8}$  inch.

*Hab.* Solun, Punjab. In coll. F. Moore.

Allied to *H. albiflexura*, Walker, and to *H. constellata*, Moore, from Darjiling. It also has much the appearance of *Mamestra brassicæ*.

## Fam. XYLINIDÆ.

Genus *CUCULLIA*, Ochs.*CUCULLIA ALBESCENS*, n. sp.

A smaller species than *C. atkinsoni*; fore wing paler brown, the grey more diffused through the middle of the wing: hind wing cinereous-white, with a very faint brownish marginal border. Underside much paler than *C. atkinsoni*, the hind wing almost uniformly white. Body greyer; legs grey above.

Expanse  $1\frac{6}{8}$  inch.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.



Genus *CALLÆNIA*, Hübner.*Cucullia* (part.) auctorum.*CALLÆNIA PULLATA*, n. sp.

Fore wing grey; veins black, with a transverse very indistinct black antemedian and a postmedian zigzag line, some slender longitudinal streaks near the outer margin, and a lunular black marginal line; an indistinct orbicular and reniform black-lined mark, the latter extending below end of the cell: hind wing white, with a broad black outer marginal band and a discocellular spot; costal and subcostal veins lined with black; cilia white. Thorax, head, palpi, and legs above grey; abdomen black, with grey tip; a slender black collar on front of thorax.

Expanse  $2\frac{3}{4}$  inches.

*Hab.* Dalhousie, N.W. Himalaya. In coll. F. Moore.

Genus *CALOPHASIA*, Stephens.*CALOPHASIA CASHMIRENSIS*, n. sp.

Fore wing pale whitish ochreous, with a pale yellowish-ochreous median transverse band, bordered on both sides by an indistinct black sinuous double line, and medianly traversed below the cell by a more distinct black lunular fascia; costal border blackish; orbicular and reniform marks blackish, and lined with pale ochreous; base of wing black-speckled, and longitudinally streaked near posterior margin; some black dentate discal marks, a patch above posterior angle, and a marginal row of white-bordered black points: hind wing dusky white, with a very pale dusky black border, and a distinct black lunular marginal line. Body pale ochreous, palpi and legs black-speckled; legs with black tarsal bands.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Changas, Cashmir. In coll. Dr. Staudinger.

Near to the European *C. linariæ*, Fabr.

*CALOPHASIA LOBIFERA*, n. sp.

Fore wing greenish brown, with a pale pinkish-ochreous fascia extending from base through the cell to the apex, a slender black transverse subbasal irregular line, which is deeply indented outward below the cell and forms a lobate spot, and a discal irregular waved line, both with a brown outer border, the interspace below the cell dusky grey; veins black, with pale margins and intervening black streak terminating in a white cilia point; some black streaks on costa near base, and white streaks towards the apex; an indistinct orbicular and reniform brown-lined mark, both centred with brown; a short oblique, double, basal brown line below the cell: hind wing greyish brown; cilia white. Body pale ochreous, thorax grey-speckled; palpi and legs above brown, with ochreous bands.

Expanse  $1\frac{2}{10}$  inch.

*Hab.* Bombay. In coll. F. Moore.

## Fam. HAMEROSIDÆ.

## Genus APSARASA, Moore.

## APSARASA WALLACEI, n. sp.

*Female.* Glossy purplish black. Differs from *A. radians* from Sikkin, and *A. figurata* from Andamans, in having the marginal spots alternately obsolete on the costa, a broader intervening space between those on the outer margin, and a much larger quadrate spot on middle of hind margin. Underside of fore wing as above, hind wing without basal spots. Abdomen black above, small lateral spots and streak beneath white.

Expanse  $2\frac{7}{8}$  inches.

*Hab.* Dorey (*Wallace*). In coll. Oxford University Museum.

## Fam. ACONTIIDÆ.

## NARANGA, n. g.

Wings small: fore wing elongated, narrow, acute at the apex, exterior margin oblique; hind wing slightly elongated and narrow. Veins similar to those in *Xanthodes*. Palpi small, smooth, slightly ascending, third joint minute, slender, short; legs slender, smooth. Type *N. diffusa*.

## NARANGA DIFFUSA.

*Xanthodes diffusa*, Walker, Cat. Lep. Het. B. M. xxxiii. Suppl. p. 779 (1865).

Fore wing yellow, with a slight median, oblique, short purplish-red band, a less distinct streak below the apex, and a spot above posterior angle: hind wing whitish yellow. Body, palpi, and legs above yellow.

Expanse  $\frac{7}{8}$  inch.

*Hab.* Ceylon; S. India (Nilgiris); Formosa.

## NARANGA ÆNESCENS, n. sp.

Fore wing ænescent yellow, with two narrow purple-brown outer bands: hind wing brown; cilia yellow. Body and legs yellow.

Expanse  $\frac{8}{12}$  inch.

*Hab.* Formosa (*Swinhoe*). In coll. F. Moore.

## CHURIA, n. g.

Fore wing elongated, narrow, rectangular; costal vein extending to two thirds the margin; first subcostal emitted at one half and second at one eighth before end of the cell, second trifurcate, third and fourth at equal distances from base of second, fifth from end of the cell and slightly touching third at its base; discocellular bent at its upper and lower end, and very convex in the middle, radials from the angles; upper median branch from end of the cell, middle branch from one eighth and lower from beyond one third before end of the cell; submedian slightly curved at the base. Hind wing short; costal vein straight, extending to apex; two subcostal branches from end

of the cell; discocellular obliquely concave; radial from its lower end immediately above angle of the cell; two upper median branches from beyond end of the cell, lower from one third before the end; submedian and internal veins straight. Body stout, abdomen long; palpi porrect, second joint laterally broad at the tip, clothed with coarse lax scales, third joint short, thick, half the length of the second; legs stout, squamose; antennæ setose. Type *C. nigrisigna*.

*CHURIA NIGRISIGNA*, n. sp. (Plate XXXVII. fig. 13.)

*Male and Female.* Upperside pale brownish ochreous; fore wing with a small black spot on middle of the discocellular veinlet; cilia ochreous-white: underside paler along the posterior border of fore wing and on the hind wing. Palpi and legs above pale brownish ochreous.

Expanse, ♂  $\frac{9}{10}$ , ♀  $1\frac{1}{10}$  inch.

*Hab.* Calcutta. In coll. Dr. Staudinger.

*CHURIA OCHRACEA*, n. sp.

*Male.* Upperside paler ochreous than in *C. nigrisigna*; no black spot on the fore wing: underside pale ochreous; thorax, palpi, and legs above ochreous.

Expanse  $\frac{8}{10}$  inch.

*Hab.* Calcutta. In coll. Dr. Staudinger.

*CHURIA MACULATA*, n. sp.

*Male.* Upperside pale brownish ochreous; cilia ochreous-white; fore wing with a small black spot on middle of discocellular veinlet, and three equidistant spots on the submarginal border. Underside paler ochreous, palest along posterior border of fore wing and on the hind wing. Palpi and legs above brownish ochreous.

Expanse  $1\frac{0}{2}$  inch.

*Hab.* Ceylon. In coll. F. M. Mackwood.

#### Fam. HELIOTHIDÆ.

This family should be ranged between the Acontiidæ and Anthophilidæ, the genera comprised in it having closer affinity with those families than with the Xylinidæ.

A prominent character in the species of Heliothidæ, not present, so far as I know, in any other group, is that the tibiæ of the front legs are armed with spines, thus giving them the appearance of miniature crabs' claws<sup>1</sup>.

In *Heliothis dipsacea*, *H. aduncta*, Butler (a Chinese species), *H. maritima*, *H. ononidas*, *H. armigera*, and *H. peltigera* the fore tibia is long, narrow, and armed with two slender spines in front, as well as possessing other shorter spines on each side. In *H. incarnata*, which is generically distinct from the above-mentioned species, the tibia is shorter and stouter, and is armed only with two

<sup>1</sup> Since writing the above, I find that *Petasia*, a genus of Notodontidæ, is similarly armed. Both *P. cassinea* and *P. nubeculosa* have a single stout terminal spine on the outer end of the tibia.

stout black terminal front spines; the palpi are stouter and have the terminal joint hairy; the fore wing is less triangular in form, and the hind wing shorter than in typical *Heliothis*. For this species (*incarnata*) I propose the generic name of *Chazaria*.

The species described by Walker as *H. lucilinea* (Cat. Lep. Het. B. M. xv. p. 1749), from St. Domingo, is also generically distinct from the above; the *Periphanes delphini* and *Oria sanguinea* (a North-American species) have a very short stoutish tibia armed with two terminal stout spines, this character also occurring less stoutly in the European *Anthæcia pulchra*, *A. cardui*, *A. cognata*, *A. cora*, *A. lynx* (a North-American species), and in *A. dorsilutea*, the locality of which is unknown.

In *Melicleptria scutosa* (Europe) and *M. speciosa* (N. America) the tibia is more slender and delicately spined than in *Heliothis*, the tarsus also being more delicate and comparatively longer.

In *Ædophron phlebophora* and *Stephania puniceago* the terminal spines of the tibia are short, and the basal joint of the tarsus, also, is laterally spined.

In this family (Heliothidæ) should also be placed:—the American genus *Derrima* (*D. stellata*, Walk. Cat. Lep. Het. xii. p. 770, and *D. henrietta*, Grote), arranged hitherto in the Hamerosidæ; the *Anthophila lineata* and *A. divergens* of Walker's Cat. xii. p. 830, of unknown locality and which are quite distinct from typical *Anthophila*; and the *Microphysa contracta* (Walker, Cat. Lep. Het. xii. p. 836), which is also generically distinct from *Microphysa*.

The insect described as *Chariclea taurica*, and assigned to that genus in European catalogues, is quite distinct from typical *Chariclea* (*Periphanes delphini*), differing from it in not possessing the tibial spines, and having, moreover, very short tarsi. It should be arranged with the Anthophilidæ, under the generic name of *Philaretia*; in the Anthophilidæ should also be placed the genus *Pyrrhia* (*P. marginata* and *P. purpuritis*),—these species agreeing better in their tibial and tarsal characters than with the Heliothidæ.

#### Genus HELIOTHIS, Hübner.

##### HELIOTHIS PERIGEOIDES, n. sp.

*Male*. Fore wing pale ochreous-yellow, crossed by two subbasal ochreous-brown pale-bordered zigzag lines; a median sinuous fascia, and a discal white-pointed sinuous line, bordered by an outer brownish waved fascia; a pale-bordered orbicular and a reniform spot, the latter with grey centre; some whitish spots on the costal edge, and an outer marginal row of distinct black dots: hind wing ochreous-white, with an ochreous-brown marginal band enclosing a central white patch. Underside ochreous-white, with dusky-brown markings as in *H. peltigera*, but paler, and the discal fascia on both wings interrupted.

Expanse 1 to  $1\frac{1}{8}$  inch.

*Hab.* Kutch, N.W. India. In coll. F. Moore.

Near to *H. peltigera*, which also occurs in Kutch, but is a much smaller and differently marked insect.



*HELIOTHIS SUCCINEA*, n. sp.

*Male and Female.* Ochreous-yellow: fore wing crossed by two subbasal brown zigzag lines, an outwardly-waved median line, a lunular discal line, and a sinuous submarginal line, with indistinct paler intervening lines, the space between the discal lunular line and the submarginal line dusky ochreous-brown: hind wing with an ochreous-black marginal band enclosing a pale yellow central spot. Underside with dusky markings similar to those in *H. armigera*. Thorax greenish ochreous; abdomen, palpi, and legs yellowish ochreous.

Expanse, ♂ 1 inch, ♀  $1\frac{1}{8}$ .

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

This is allied to *H. armigera*, but is smaller and differently coloured; the fore-wing markings also differ.

*RAGHUVA*, n. g.

Fore wing short, narrow; costa slightly arched at the base and with a swollen protuberance on its middle; exterior margin oblique and convex; costal veins recurved; subcostal recurved before end of the cell, first branch recurved towards the costa, emitted at half length of the cell, second branch emitted before end of cell, trifurcate, third from near its base, fourth at one half its length, fifth from end of the cell, curved upward, and touching third near its base; discocellular bent near each end, radials from the angles; two upper median branches from angles at end of the cell, lower at some distance before the end. Hind wing short; two subcostal branches emitted beyond end of the cell; discocellular concave, very slender, a slender radial from its middle, two upper median branches from end of the cell, lower from near its end. Body extending beyond hind wing; palpi slender, apex short; legs slender, femora slightly pilose beneath, fore tibia in male armed with two terminal spines in front; antennæ setose.

*RAGHUVA CONFERTISSIMA*.

*Leucania confertissima*, Walker, Cat. Lep. Het. B. M. xxxii. p. 625 (1865).

*Hab.* S. India.

*SOPHAGA*, n. g.

Allied to *Dorika*. Wings longer and comparatively broader; fore wing with straighter costa and shorter posterior margin; first subcostal moderately long, second emitted immediately before end of the cell, third trifurcate, emitted at end of the cell, and anastomosing with second very close to its base for a short distance, fourth and fifth short; upper discocellular very short, lower very slender and deeply concave; radials from angle of upper and near end of lower, two upper median branches from angles at end of the cell, lower from near the end. Hind wing with two subcostal branches emitted at one fourth beyond end of the cell; discocellular bent in the middle; radial from its angle; two upper median branches from

end of the cell, lower from distance before the end. Body long; palpi short; legs very hairy beneath; male with fore tibia furnished with a pair of terminal front spines; antennæ setose.

Type *S. sinuata*.

*SOPHAGA SINUATA*, n. sp.

*Male and Female.* Fore wing pale yellow, with a broad transverse dark ochreous-yellow median band, its inner border being bent below the cell, its outer border sinuous and with a brown point on each of the veins from the radial; a dark ochreous streak from the band, along median vein, to the base; exterior border with short longitudinal dark ochreous streaks, and a marginal row of black dots: hind wing pale greyish ochreous, the discal area brownish. Underside paler; fore wing with the discal area and a marginal row of black dots: hind wing in male with a narrow discal transverse brownish band, indistinct discocellular spot, and speckles along outer border, obsolete in female. Thorax dark ochreous; abdomen brownish ochreous; terminal spines on fore tibia black.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

*DORIKA*, n. g.

Fore wing short, narrow; costa slightly arched from the base, exterior margin oblique, convex; first subcostal branch somewhat short, second emitted from beyond end of the cell, quadrifid, third from close to base of second, fourth and fifth on a foot-stalk near apex; cell long, narrow; upper discocellular very short, lower slender, concave, bent slightly near median; radials from their angles; upper median branch from angle above end of the cell, middle branch from the end, lower at some distance before the end and opposite first subcostal: hind wing convex at the apex, exterior margin recurved, abdominal margin short; two subcostal branches emitted from beyond end of the cell; discocellular very slender, radial from the middle; two upper median branches from end of the cell, lower from near its end. Body short; palpi slender, pilose; legs pilose beneath; fore tibia in male armed in front with a long and a short spur; antennæ setose.

Type *D. sanguinolenta*.

*DORIKA SANGUINOLENTA*, n. sp.

*Female.* Fore wing bright yellow; costal edge white; longitudinally streaked with red along costal border, the median veins, and submedian vein; cilia pinky white: hind wing white. Thorax, palpi, and legs above ochreous-red; abdomen brownish ochreous.

Expanse  $1\frac{2}{2}$  inch.

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

*DORIKA AUREOLA*.

*Leucania aureola*, Walker, Cat. Lep. Het. B. M. ix. p. 108 (1856).

*Hab.* Canara, S. India.

## MASALIA, n. g.

Wings small: fore wing short, narrow; costal vein running close to the margin; first subcostal branch short, emitted at one fourth before end of the cell, second at equal distance between first and fifth, trifid, the third and fourth at about one half from base of second, fifth from end of the cell, ascending and touching the second at halfway between its base and third; upper discocellular straight, short, lower concave, bent near lower end, radials from the angles; upper median branch from angle above end of the cell, middle branch from the end, lower from opposite first subcostal. Hind wing small, exterior margin convex; two subcostal branches from end of the cell; discocellular bent in the middle, radial from the angle; cell short; two upper median branches from end of the cell. Body moderately slender; palpi minute, slender, porrect; antennæ filiform; fore tibia armed with a pair of terminal spines.

Type *M. radiata*.

## MASALIA RADIATA, n. sp.

Fore wing greyish ochreous-brown, with a pale yellow longitudinal narrow streak from base of the cell to outer margin; a short basal streak below it between the median and submedian veins, and a narrower streak extending along and between the subcostal and median veins; costal edge yellow; cilia pale pinkish grey: hind wing greyish brown. Underside greyish brown; fore wing with white streaks disposed as on upperside. Thorax, head, palpi, and legs above ochreous-brown; terminal spines on fore tibia black; abdomen ochreous; eyes black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Manpuri, N.W. India (*Horne*). In coll. F. Moore.

## MASALIA IRRORATA, n. sp.

*Female.* Fore wing pale reddish ochreous, with paler streaks between the veins, speckled with minute dark-brown scales, which are most numerous along the area of the veins and on posterior border; an oblique transverse discal series of six black points, one on each lower vein; cilia bordered with white: hind wing white; cilia white. Underside very pale ochreous-white; fore wing with the costal border tinged with red; median veins brown-speckled. Thorax pale reddish ochreous; front of head, palpi, and legs above brownish ochreous.

Expanse  $1\frac{5}{8}$  inch.

*Hab.* Darjiling. In coll. F. Moore.

## PRADATTA, n. g.

Fore wing comparatively short and broad; costa slightly depressed in the middle, exterior margin oblique, posterior margin convex near the base; cell long; first subcostal branch rather short, second emitted from near end of the cell, trifurcate, third and fourth close together, fifth curved abruptly upward from end of the cell and

anastomosed to third near its base; discocellular very slender, bent close to each end, concave in middle, upper and lower radials from the angles; upper median branch emitted from angle above end of the cell, middle branch from the end, lower from some distance before the end. Hind wing comparatively long and narrow; two subcostal branches from end of the cell; discocellular bent in middle, a very slender radial from the middle; cell long; two upper median branches from end of the cell, lower from some distance before the end. Body long, slender; thorax laxly pilose; palpi pilose, small, apex very short; legs slightly pilose beneath; fore tibia in male armed with a long and a short black spine in front; antennæ in male minutely pectinate.

Type *P. beatrix*.

PRADATTA BEATRIX, n. sp.

*Synia beatrix*, Von M. D. R., MS.

*Male and Female.* Fore wing pale pink, with a longitudinal pale yellow fascia extending from the base of the cell to exterior margin, and a similar fascia below the cell spreading below the median vein to the outer margin; some specimens have the median vein to end of the cell tinged with black: hind wing white, with pink lining to the veins and outer border. Underside—fore wing with paler costal and outer border than above; hind wing with pink costal border. Thorax pinkish brown, palest on tegulæ; abdomen pale yellowish above, pinkish beneath; palpi and legs above ochreous-red; fore-tibial claws black.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Canara (S. India); Dharmasala (N.W. Himalaya); Saibabad (Cashmir). In coll. F. Moore, Dr. Staudinger, and Lord Walsingham.

PRADATTA BIVITTATA.

*Leucania bivittata*, Walker, Catal. Lep. Het. B. M. ix. p. 108 (1856).

*Hab.* S. India. In coll. British Museum.

PRADATTA DECORATA, n. sp.

*Male and Female.* Fore wing pale yellow, with a broad triangular pale crimson band extending from base through and below the cell and thence obliquely upward across the disk to the apex; a recurved series of six white spots on the discal portion of the band, one on middle of median vein, and one on submedian vein; cilia crimson: hind wing paler yellow; cilia whitish, slightly tinged with crimson at the apex. Body pale yellow; thorax ochreous; front of head, tip of palpi, and legs above crimson; fore-tibial claws black.

Expanse  $\frac{3}{4}$  to 1 inch.

*Hab.* Deccan (*Dr. Day*); Manpuri, N.W. Provinces (*Horne*); Allahabad (*Hellard*); Sind valley and Saidabad, Cashmir (*Atkinson*). In coll. F. Moore and Dr. Staudinger.



*PRADATTA ARTAXOÏDES*, n. sp.

*Male and Female.* Fore wing uniformly ochreous-yellow; hind wing brownish-ochreous, darkest externally; cilia yellow. Under-side paler; basal and discal area of fore wing brownish ochreous. Tip and side of palpi and fore legs above brownish.

Expanse, ♂  $\frac{9}{10}$ , ♀ 1 inch.

*Hab.* N.W. Himalaya; Cashmir. In coll. F. Moore.

*PRADATTA MODESTA*, n. sp.

*Female.* Fore wing pale ochreous-yellow; hind wing ochreous-white. Underside of fore wing with a greyish-brown discocellular patch. Body, palpi, and legs pale ochreous-yellow; fore tibial claws black.

Expanse  $\frac{9}{10}$  inch.

*Hab.* Manpuri, N.W. India (*Horne*). In coll. F. Moore.

*CURUBASA*, n. g.

*Male and Female.* Fore wing elongated, narrow, costa arched at the base, apex somewhat acute; exterior margin oblique, even, slightly convex hindward and at the angle; cell long; costal vein recurved towards its end; first subcostal branch emitted beyond half length of the cell, second immediately before end of the cell, trifid, the third and fourth at one third from its base; fifth from end of the cell, ascending and touching the second close to end of the third; discocellular bent near upper and lower end, slender, concave in middle, radials from the angles; upper median branch from angle above end of the cell, middle branch from the end, lower at one fourth before the end. Hind wing broad, apex convex, exterior margin waved; two subcostal branches emitted from end of the cell; discocellular slender, bent in the middle, radial from the middle; cell short; two upper median branches from end of the cell. Body moderately stout; palpi short, slender, porrect; femora and tibiae slightly pilose above; fore tibia short, thick, and armed with two terminal black spines; antennæ filiform.

Type *C. lanceolata*.

*CURUBASA LANCEOLATA*.

*Alaria lanceolata*, Walker, Catal. Lep. Het. B. M. xxxiii. p. 767 (1865).

Fore wing pale silky-yellow, with a purplish-pink costal band which extends halfway across and through the cell to below the apex; a similar band above the posterior border: hind wing whitish; thorax, head, palpi, and legs above purplish pink; terminal spines on fore tibia black; abdomen yellow.

Expanse  $1\frac{1}{8}$  inch.

*Hab.* Nilgiris (S. India). In coll. British Museum and F. Moore.

*CURUBASA CRUENTATA*, n. sp.

*Male and Female.* Fore wing pale silky yellow, with a purplish-pink costal band extending only to the subcostal vein, a similar but broader and darker band along the posterior margin; cilia yellow, edged with pale pink: hind wing paler yellow. Thorax and front of head ochreous-brown; abdomen yellow; palpi and legs above reddish ochreous; terminal spines on fore tibia black.

Expanse, ♂ 1, ♀  $1\frac{2}{5}$  inch.

*Hab.* N.W. India; Noashera, Cashmir. In coll. F. Moore and Dr. Staudinger.

*CURUBASA CALAMARIA*, n. sp.

*Male.* Very pale straw-yellow; fore wing with a very indistinct longitudinal roseate streak through the median vein. Underside as above; basal and discal areas, including the costa of fore wing, greyish brown. Thorax, front of head, palpi, and legs above brownish ochreous; spines on fore tibia black.

Expanse  $\frac{9}{10}$  inch.

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

*CURUBASA MARGINATA*, n. sp.

*Male.* Somewhat paler than *C. calamaria*. Fore wing with an ochreous-grey band along posterior margin: hind wing with the basal area slightly greyish brown. Underside of fore wing with the basal and discal areas greyish brown, costal border pale yellow. Front of head, palpi, and legs above purplish grey; fore tibial claws black.

Expanse 1 inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.

*ADISURA*, n. g.

Fore wing comparatively short and broad, triangular, costa nearly straight, apex very acute, exterior margin oblique and even, posterior margin short; first subcostal branch emitted from half length of the cell, second near the end, trifurcate, the third and fourth at equal distances from base of second, fifth curved upward from end of the cell and touching the third close to its base; discocellular concave, slightly bent near its lower end; upper radial from end of the cell, lower from angle of discocellular; upper median branch from angle above end of the cell, middle branch from the end, lower at some distance before its end. Hind wing triangular, rather broad and short; costa nearly straight, exterior margin convex and much waved, abdominal margin short; two subcostal branches emitted from end of the cell; discocellular very slender, slightly concave; radial extremely slender, emitted from middle of discocellular; two upper median branches from slightly beyond end of the cell, lower from one third before its end. Body short, stout; palpi stout, laxly squamose, apical joint thick, short; legs laxly pilose; antennæ minutely pectinated in male.

Type *A. atkinsoni*.

## ADISURA ATKINSONI, n. sp. (Plate XXXVII. fig. 6.)

*Male and Female.* Fore wing pale purplish brownish-ochreous, with a suffused paler fascia from base through the cell to the apex; indistinctly speckled with minute black scales, which are most apparent on the costal border; a curved discal transverse recurved series of minute black points, which are less distinct in the male: hind wing pale ochreous-yellow, with a slight purplish-brown sub-marginal fascia; median and submedian veins lined with darker brown scales. Underside of both wings uniformly pale ochreous, with a few brown speckles along the costal border. Thorax brownish ochreous; pectus, palpi at the side, and legs brighter ochreous, fore and middle femora with a brown streak; abdomen above brown-speckled.

Expanse, ♂  $1\frac{2}{12}$ , ♀  $1\frac{5}{12}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## ADISURA LEUCANIODES, n. sp.

*Male and Female.* Fore wing pale brownish ochreous, greyish along the costal border; minutely brown-speckled, which gives it the appearance of a fascia along the costa and from below the apex to posterior margin; some indistinct brown spots within the cell, and a transverse recurved row of minute indistinct black points; cilia brownish, edged with white: hind wing whitish ochreous at base, ochreous externally, and with a distinct continuous marginal suffused brown band; cilia ochreous-white. Body, palpi, and legs ochreous; thorax greyish. Underside pale ochreous: fore wing with a discal dusky band and discocellular spot.

Expanse  $1\frac{2}{12}$  inch.

*Hab.* Kutch (Western India). In coll. F. Moore.

## ADISURA MARGINALIS.

*Anthophila marginalis*, Walker, Catal. Lep. Het. B. M. xii. p. 830 (1857).

*Male and Female.* Pale gamboge-yellow: fore wing with a pale pink band along the costa and a similar band above the posterior margin; extreme edge of the costa yellow; cilia pale pink, edged with white: hind wing paler yellow at the base, with a slight ochreous outer border; cilia edged with white.

Expanse, ♂  $1\frac{1}{12}$ , ♀ 1 inch.

*Hab.* Calcutta. In coll. F. Moore and Dr. Staudinger.

## ADISURA DELICIA.

*Heliothis delicia*, Felder and Rogenh. Nov. Voy. iv. pl. 108. f. 40 (1872).

*Hab.* Bangkok; Amboina (*Felder*).

## ADISURA DULCIS, n. sp. (Plate XXXVII. fig. 20.)

*Male and Female.* Fore wing golden yellow, with a prominent purplish-pink band along the costal, exterior, and posterior margins;

cilia entirely pink : hind wing pale yellow, with a distinct dusky-brown marginal band ; cilia yellowish white. Underside pale yellow ; fore wing with the veins broadly suffused with dusky black, and a blackish discal fascia. Body pale brownish ochreous ; thorax, palpi, and legs above ochreous-brown.

Expanse 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*ADISURA PALLIDA*, n. sp.

*Male.* Fore wing pale purplish ochreous-grey, with the costal edge and longitudinal streaks extending to outer margin very pale ochreous-brown ; a few minute black speckles on costal and posterior borders ; a curved discal transverse row of minute black points ; cilia edged with white : hind wing ochreous-white, with an indistinct pale-brown median submarginal fascia. Underside ochreous-white. Thorax and head ochreous-grey ; palpi at the side, and legs above, ochreous-brown.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* Ceylon. In coll. F. M. Mackwood.

Nearest allied to *A. leucanioides*.

*ADISURA SIMILIS*, n. sp.

Allied to *A. marginalis*. Differs from it in being of a pale ochreous yellow ; the fore wing with similar marginal bands and cilia, but with the disk crossed by an indistinct recurved row of brown speckles, some speckles also being present towards the base of hind margin : hind wing whitish at the base.

Expanse, ♂ ♀  $1\frac{1}{2}$  inch.

*Hab.* Calcutta. In coll. F. Moore and Dr. Staudinger.

Fam. ANTHOPHILIDÆ.

Genus HYDRELIA, Guén.

*HYDRELIA CONJUGATA*, n. sp.

*Male and Female.* Fore wing dark umber-brown ; costal border pale ochreous-brown, with darker streaks between the costal and subcostal veins ; a white-bordered, brown elongated outwardly-oblique orbicular mark, which is confluent hindward with a similar upright reniform mark, an oblique pale streak below the cell in a line with the orbicular mark ; these markings indistinct in the female : hind wing ochreous-brown ; thorax, palpi, and legs above brown-speckled.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Genus THALPOCHARES, Lederer.

*Micra*<sup>1</sup>, Guénée, Ann. Soc. Ent. Fr. x. p. 224 (1841).

*THALPOCHARES PARVULA*, n. sp.

Near to the European *T. parva*, but of smaller size. White :

<sup>1</sup> Previously used in Diptera.



fore wing with a straight transverse dark ochreous-brown median band, a recurved discal white line, the outer margin clouded with ochreous brown, a black dot before the apex: hind wing white. Body, palpi, and legs white; second joint of palpi with a pale ochreous band.

Expanse  $\frac{6}{1\frac{1}{2}}$  inch.

*Hab.* Bombay. In coll. F. Moore.

**THALPOCHARES ALBIDA**, n. sp.

White: fore wing with a very pale slender ochreous-brown median transverse oblique band, and an interrupted submarginal similar band: hind wing white, with a very faint pale ochreous margin.

Expanse  $\frac{5}{1\frac{1}{2}}$  inch.

*Hab.* Bombay. In coll. F. Moore.

**THALPOCHARES ROSEANA**, n. sp.

*Micra roseana*, V. M. d. R. MS.

*Male and Female.* Ochreous-white: fore wing with a very oblique median transverse greenish ochreous-brown band, and a broadly recurved transverse discal whitish line, the interspace being bright purple-red; outer margin greenish ochreous-brown, with a minute indistinct apical and posterior black dot: hind wing with greenish ochreous-brown outer margin. Body, palpi, and legs white; second joint of palpi and fore legs above ochreous.

Expanse, ♂  $\frac{5}{1\frac{1}{2}}$ , ♀  $\frac{6}{1\frac{1}{2}}$  inch.

*Hab.* Bombay (*Dr Leith*). In coll. F. Moore.

Slightly smaller in size than the allied *T. rivula*, the oblique transverse fascia and line being more oblique. It has also been taken at Dharmasala by Rev. J. H. Hocking.

**THALPOCHARES TRIFASCIATA**, n. sp. (Plate XXXVIII. fig. 21.)

White: fore wing with two oblique transverse narrow basal bands, and a broad outer lilac-grey band, each thickly studded with ochreous-brown scales; a slight apical red patch bordered by a few black dots, which continue hindward indistinctly to the angle: hind wing thickly studded with ochreous-brown scales on posterior area. Body brown-scaled; fore tarsi with brown bands.

Expanse  $\frac{8}{1\frac{1}{2}}$  inch.

*Hab.* Calcutta. In coll. Dr. Staudinger.

**THALPOCHARES QUADRILINEATA**, n. sp. (Plate XXXVIII. fig. 14.)

Fore wing pale ochreous, irrorated with minute brown scales, these scales darkest along inner border of four transverse equidistant pale lines, and also on the costa before the apex, the basal line very indistinct; a white streak from the apex followed by a recurved row of indistinct black speckles; outer border bright ochreous: hind wing ochreous-white, with ochreous marginal line. Body, palpi, and legs above ochreous.

Expanse  $\frac{8}{1\frac{1}{2}}$  inch.

*Hab.* Calcutta. In coll. Dr. Staudinger.

*THALPOCHARES DIVISA*, n. sp.

*Male and Female.* Yellow: fore wing with a broad outer dark ochreous band occupying half the wing, the inner border of the band formed by a delicate black line, broadly suffused outwardly across the disk with ochreous-red, the exterior margin of the wing also ochreous-red and traversed by a narrow white line, on which are a few minute black dots; two indistinct black dots also at end of the cell: hind wing with a slight ochreous outer margin.

Expanse  $\frac{5}{8}$  inch.

*Hab.* Allahabad (*Hellard*); Calcutta (*Grote*); Ceylon (*Mackwood*). In coll. F. Moore.

*THALPOCHARES BIFASCIATA*, n. sp.

White: fore wing with a broad transverse median band and the outer margin clear golden-yellow, the inner border of the latter deeply waved: hind wing and body white.

Expanse  $\frac{5}{12}$  inch.

*Hab.* Allahabad, Punjab, N.W. India (*Hellard*). In coll. F. Moore.

*THALPOCHARES FLAVIDA*, n. sp.

Fore wing pale ochreous-yellow, crossed by two median indistinct narrow red lines: hind wing pale ochreous-red; cilia ochreous-white. Body, palpi, and legs above pale ochreous.

Expanse  $\frac{7}{12}$  inch.

*Hab.* Allahabad, Punjab, N.W. India (*Hellard*). In coll. F. Moore.

Genus *LEPTOSIA*, Guén.*LEPTOSIA QUINARIA*, n. sp.

*Male and Female.* Brownish grey: fore wing with a basal and three equidistant median transverse waved pale-bordered brown bands, each broadest and darkest at the costal end; an outer transverse sinuous pale-bordered black line: hind wing cinereous along the costal border, brown-speckled on posterior half, with short transverse pale sinuous bands. Body, palpi, and legs brownish grey.

Expanse  $\frac{10}{12}$  inch.

*Hab.* Allahabad, Manpuri, N.W. India. In coll. F. Moore.

Genus *ACANTHOLIPES*, Lederer.

*Acantholipes*, Lederer, *Die Noct. Europa's*, p. 198 (1857).

*Docela*, Walker, *Catal. Lep. Het. B. M.* xxxiv. p. 1258 (1865).

*Microphysa* (part), Boisduval.

*ACANTHOLIPES FLAVISIGNA*, n. sp.

*Female.* Ochreous-grey: fore wing with a transverse oblique median brown fascia which is narrow at the costal end, and has a deeply-waved outer border; a discal transverse, curved, oblique narrow ochreous line, with outer irregular zigzag brown border; a

pale ochreous discocellular lunule: hind wing with a transverse median brown fascia, joined by a discal ochreous band, with outer marginal broad brown band. Body, palpi, and legs above ochreous, speckled with brown.

Expanse 1 inch.

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

Allied to *A. vetustalis* (*Docela vetustalis*), Walk. *l. c.* p. 1258.

*ACANTHOLIPES NIGRISIGNA*, n. sp.

*Female.* Grey: fore wing with a dark-brown median oblique fascia, the outer border of which is almost straight; the discal ochreous line evenly curved, with dark-brown outer irregular border; discocellular lunule black: hind wing with median transverse brown fascia, ochreous discal line, and brown outer border. Body, palpi, and legs above greyish.

Expanse 1 inch.

*Hab.* Bombay (*Dr. Leith*). In coll. F. Moore.

*ACANTHOLIPES HYPENOÏDES*, n. sp.

*Male and Female.* Upperside—fore wing greyish ochreous-brown, numerously covered with dark-brown speckles, with a transverse lower discal blackish-brown band, which is broadest in the female, bordered outwardly by a slender yellowish line indistinctly angled at its upper end and bent inward to the costa; a dark-brown waved fascia below the apex; the outer margin with a pale line below the apex, and some pale speckles at end of the costa: hind wing pale ochreous-brown. Underside pale ochreous-brown; both wings slightly speckled with darker brown along the costal border; hind wing with indistinct transverse brown-speckled line. Body, palpi, and legs above greyish brown.

Expanse  $\frac{9}{10}$  to 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Fam. ERASTRIIDÆ.

Genus ERASTRIA, Ochs.

*ERASTRIA PALLIDISCA*, n. sp. (Plate XXXVII. fig. 14.)

*Male and Female.* Smaller than *E. albiorbis*: fore wing paler ferruginous-brown, the transverse markings smaller, with the median area brownish white and irregularly speckled hindward; the orbicular and reniform spots indistinct, smaller, and of the same colour as the discal area.

Expanse 1 inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

*ERASTRIA MARGINATA*, n. sp. (Plate XXXVII. fig. 21.)

Fore wing dark greyish ferruginous-brown, with a broad pale ferruginous band along the hind margin, and extending two thirds up the outer margin, where it is slightly whitish and black-streaked; an indistinct whitish discal transverse sinuous line; orbicular and

reniform spots indistinct: hind wing cinereous-brown. Thorax pale ferruginous; palpi and legs dark ferruginous-brown, with pale bands.

Expanse  $1\frac{2}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Genus *PHOTHEDES*, Lederer.

*PHOTHEDES BIPARS*, n. sp. (Plate XXXVIII. fig. 7.)

Allied to the European *P. captiuncula*, Zeller. Fore wing with the basal half dark brown, enclosing a white-lined narrow reniform spot; outer half pale brown, the margin and cilia speckled with dark brown: hind wing and abdomen pale brown. Thorax and fore legs above dark brown; collar, front of head, and palpi greyish brown.

Expanse  $\frac{9}{10}$  inch.

*Hab.* Cherra Punji, Assam.- In coll. Dr. Staudinger.

Genus *BANKIA*, Guén.

*BANKIA ANGULIFERA*, n. sp.

Fore wing very pale dull purplish ochreous, with two median transverse inwardly oblique slender pale lines, the outer line bent inward near the upper end to costa; a very indistinct submarginal series of minute brown dots: hind wing very pale purplish cinereous. Body pale brownish ochreous; palpi and fore legs above ochreous-brown, with pale tarsal bands.

Expanse  $\frac{9}{10}$  inch.

*Hab.* N.W. Himalaya. In coll. F. Moore.

*BANKIA LATIVITTA*, n. sp.

Fore wing pale ochreous-brown; basal third very obliquely white, the border defined by an irregular slender brown line; an oblique discal white band extending from posterior angle to the costa, and enclosing two black discocellular dots, the costal end projecting obliquely outward, and again indistinctly merging in the band on the disk; an oblique dark-brown speckled fascia from the apex; cilia blackish: hind wing cinereous-brown. Thorax white; abdomen cinereous, brown-speckled.

Expanse  $\frac{8}{10}$  inch.

*Hab.* Nilgiris, S. India. In coll. F. Moore.

*BANKIA ERECTA*, n. sp.

Fore wing whitish, with an erect median transverse narrow ochreous or dark olive-brown band, with black inner border; a similar-coloured fascia from the apex, leaving a curved white space before the anterior end of the band, and a fascia along exterior margin; a black dot at base of the costa and two at end of the cell, the upper one being indistinct; some speckles at the exterior apex and the cilia blackish: hind wing pale cinereous. Body whitish.

Expanse  $\frac{9}{10}$  inch.

*Hab.* Nilgiris, S. India. In coll. F. Moore.



## Fam. ERIOPIDÆ.

## METHORASA, n. g.

Allied to *Calloplistria*. Fore wing less acuminate, exterior margin less oblique and more even; first subcostal branch and the lower median comparatively nearer end of the cell. Hind wing more convex externally; cell broader; discocellular more erect. Thorax more compactly clothed; palpi smaller, second joint of uniform lateral width, third joint very short and thick; antennæ in male of normal form, and more minutely bipectinate; legs less pilose.

Type *M. latreillei*.

## METHORASA LATREILLEI.

*Eriopus latreillei*, Duponchel, Lep. Suppl. iv. p. 327, pl. 123. f. 2; Guén. Noct. ii. p. 296.

*Calloplistria latreillei*, Walker, Catal. Lep. Het. B. M. xii. p. 862.

*Eriopus quieta*, Treit. Schmett. iii. p. 259, Suppl. p. 49.

*Hab.* C. and S. Europe, N.W. India (Solun, Dharmasala).

There appear to be two forms (which are perhaps seasonal) of this species in N.W. India. Some specimens of both sexes are comparatively smaller, distinctly paler above, and with all the markings, including the sagittate mark near the apex, white; the underside also is much paler in colour.

## COTANDA, n. g.

Fore wing elongated, narrow; costa almost straight, apex acute, exterior margin angled in the middle, posterior margin recurved; costal vein extending two thirds the margin; first subcostal branch emitted at half length before end of the cell, second at one fourth, trifurcate, the third at one fourth from base of second, fourth at one third from base of third, fifth from end of the cell and touching the third near its base; discocellular bent near each end, slightly concave in the middle, the radials from the angles; upper median branch from oblique angle at end of the cell, middle branch from angle before the end, lower at one third before the end; submedian curved downward and extending near the posterior margin. Hind wing with the costal margin long, straight, apex convex, exterior margin waved, abdominal margin short; costal vein slightly recurved, extending to apex; two subcostal branches from end of the cell; discocellular slightly bent near lower end, radial from the angle; two upper median branches from end of the cell, lower at one third before its end; submedian and internal vein straight. Body moderately stout, abdomen extending beyond hind wing; palpi broad laterally, slightly ascending, second joint laxly squamose, extending two thirds its length beyond the head, third joint short; legs long, femur slightly pilose beneath, tibia laxly squamose; antennæ filiform.

## COTANDA PLACODOIDES.

*Eriopus placodoides*, Guénée, Noct. ii. p. 296.

*Hab.* Java; S. and N. India.

## PHALGA, n. g.

Fore wing—costa almost straight; apex pointed; exterior margin oblique and scalloped, angular in the middle; first subcostal branch emitted at one third before end of the cell, second at one sixth before its end, third at one eighth from below base of second, fourth at three fourths from third, fifth from end of the cell, bent obliquely upward and slightly touching third near its base; discocellular extremely slender, slightly bent at each end, convex in the middle, radials from upper and lower angles; upper median branch emitted from angle above end of the cell, middle branch from its end, lower at nearly one half before its end; submedian recurving from the base. Hind wing narrow; exterior margin convex, slightly scalloped; abdominal margin short; costal vein extending to apex, two subcostal branches emitted from end of the cell; discocellular extremely slender, radial from its lower end; cell very short; upper median branch from angle above end of the cell, middle branch from its end, lower at one third before the end; submedian and internal vein recurved. Body moderate, abdomen laterally tufted; palpi ascending, not extending above the head, second joint stout, third slender; fore tibia laxly tufted; antennæ filiform.

Allied to *Lineopalpa*, Guénée.

## PHALGA SINUOSA, n. sp. (Plate XXXVII. fig. 7.)

Fore wing pale dull brownish ochreous, with a very indistinct black-speckled-bordered, pale, zigzag subbasal transverse line, a more distinct black treble discal acute-angled zigzag line, a submarginal single line, and less distinct marginal lunular line; a pale yellowish reniform mark: hind wing ochreous-brown; cilia brownish ochreous; a slender black marginal lunular line and streaks above anal angle. Body brownish ochreous; thorax, palpi, and fore legs ochreous-brown.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Fam. EURHIPIDÆ.

## Genus EUTELIA, Hübner.

## EUTELIA SICCIFOLIA, n. sp.

Greenish ochreous, numerous covered with short indistinct dusky strigæ: fore wing crossed by five or six irregular waved indistinct blackish lines and an oblique subapical line, the costal border clouded with brown, the edge at the apex black-speckled: hind wing suffused with purplish brown on exterior border, with irregular transverse indistinct blackish lines; a slender semidiaphanous-white discocellular streak. Front of thorax, head, palpi at the side and in front, black; legs above black.

Expanse  $1\frac{1}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

Allied to *E. viridatrix*.

## Genus VARNIA, Walker.

## VARNIA FENESTRATA, n. sp.

Deep dull chocolate-red, washed with chalybeate-grey, marked with very indistinct blackish confluent strigæ; fore wing with transverse very indistinct black lines, those on the basal half waved, the discal and subapical line being oblique, straight, and joined together on the costa, the interdiscal space bordering these two lines brighter red; some pale yellow spots on the costal edge: hind wing with a large, irregular, quadrate semidiaphanous white discocellular spot, and some contiguous pale yellow streaks. Body with red dorsal streaks; palpi black laterally.

Expanse  $1\frac{3}{10}$  inch.

*Hab.* Darjiling. In coll. Dr. Staudinger.

## Fam. PLUSIIDÆ.

## Genus EUCHALCIA, Hübner.

## EUCHALCIA CASHMIRENSIS, n. sp.

Fore wing brownish olive-green, with a transverse olive-white basal line, an antemedian line curving below the cell, an undulated postmedian line, and two submarginal lines; orbicular and reniform marks formed by a similar olive-white line; the outer border of the pale lines tinged with cupreous-brown: hind wing pale purplish brown; cilia ochreous. Thorax brownish olive; abdomen ochreous, dorsal tufts bright ochreous; palpi and legs pale ochreous; tarsi and antennæ brighter ochreous.

Expanse  $1\frac{2}{4}$  inch.

*Hab.* Sind valley, Cashmir. In coll. Dr. Staudinger.

Allied to *E. uralensis* and *E. modesta*.

## Fam. CALPIDÆ.

## CULASTA, n. g.

Fore wing elongate; costa nearly straight; apex acute; exterior margin convex towards the posterior angle, posterior margin very convex near the base; first subcostal branch emitted at nearly one half before end of the cell, second at one fifth, third from near base of second, and fourth from near the apex; fifth from end of the cell, ascending to, but not touching, the third near its base; discocellular bent near each end, concave and very slender in the middle, radials from the angles; cell long, extending more than half length of the wing; upper median branch from angle above end of the cell, middle branch from its end, lower at one third before the end; submedian recurved. Hind wing somewhat short and broad, exterior margin waved, convex; costal vein nearly straight; two subcostal branches from end of the cell; discocellular bent inward in the middle, radial from its lower end; cell broad, short; two upper median branches emitted from angle at end of the cell, lower at one fourth before its end; submedian and internal vein slightly curved. Body stout,

head flat above; palpi large, thick, pointed at the tip, ascending to the vertex and then projecting out in front; legs moderately long, laxly squamose; antennæ filiform.

*CULASTA INDECISA*, n. sp.

Fore wing pale greyish ochreous, greyest externally, with an indistinct oblique grey streak ascending from middle of posterior margin to below the apex, the streak bordered on the inner side by a contiguous brown line, which is broken and diffused at the apex, and on the outer side by broader suffused brown lines; a minute brown dot at lower end of the cell, and a row of dots on outer margin: hind wing whitish ochreous; cilia white. Body, palpi, and legs pale ochreous.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Madras; Bombay (*Dr. Leith*); Benares (*Atkinson*). In coll. F. Moore and Dr. Standinger.

Fam. HYBLÆIDÆ.

Genus PHYCODES.

*Phycodes*, Guénée, Noct. xi. p. 389 (1852).

*Tegna*, Walker, Cat. Lep. Het. B. M. xxxv. p. 1810 (1866).

Wings elongated: fore wing narrow, rectangular; exterior margin almost erect; costal vein extending two thirds the margin; first subcostal branch emitted at half length of the cell, second at one fifth, third, fourth, and fifth from end of the cell; discocellular very slender, slightly bent at each end, radials from the angles; cell very long and narrow, extending two thirds the wing; upper and middle median branches from angles at end of the cell, lower from one fifth before the end; submedian much waved. Hind wing long, costal margin extending to length of fore wing, exterior margin very oblique, abdominal margin short; costal vein nearly straight, extending to apex; subcostal waved, first and second branches emitted from immediately before end of the cell; discocellular slightly oblique and convex, radial from slight angle near its middle; two upper median branches emitted at a short distance beyond end of the cell, lower at one third before its end; submedian straight, internal vein curved. Body short, stout, smooth, abdomen thick; front of thorax and head projecting much beyond base of costa; palpi short, not extending beyond the head, second joint very broad and flat, third joint minute, conical; legs smooth, short; middle and hind tibiæ short, thick, spined and with slight spiny tufts above; antennæ thickened near the base, tips slightly clavate in male.

PHYCODES HIRUNDINICORNIS.

*Phycodes hirundinicornis*, Guénée, Noct. ii. p. 389 (1852).

*Tegna hyblæella*, Walker, Cat. Lep. Het. B. M. xxxv. p. 1810 (1866).

*Hab.* N. and S. India (Lucknow, Calcutta, Madras, Bombay).



## PHYCODES TORTRICINA, n. sp.

Fore wing dark cupreous-brown, with a blackish patch on posterior margin towards the base, an indistinct blackish patch on the discal area: hind wing darker, with less-defined yellow basal streak than in *P. hirundinicornis*. Underside more uniformly coloured, no yellowish streaks on the discal areas.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Canara, S. India (*Ward*). In coll. F. Moore.

## PHYCODES QUIRIS.

*Atychia quiris*, Felder and Rogenh. Novara Voy. iv. pl. 139. f. 36 (1875).

*Hab.* S. Africa (*Trimen*).

## PHYCODES MINOR, n. sp.

Fore wing cupreous-grey, with a slender cupreous-brown median transverse band: hind wing greyish cupreous; cilia white. Underside uniformly brown. Body cupreous-grey; second joint of palpi white, third joint black; legs cupreous-brown above, femora beneath and bands above white.

Expanse  $\frac{8}{12}$  inch.

*Hab.* N.W. India; Caragola, Bengal (*Atkinson*). In coll. F. Moore and Dr. Staudinger.

## PHYCODES MACULATA, n. sp.

Fore wing cupreous-black, very indistinctly speckled with minute grey scales, with several golden-yellow spots on the basal and median areas, and longitudinal streaks on the exterior border: hind wing with a pale yellow linear streak from the base, a slender streak above the anal angle, and three spots on the upper part of the disk; cilia pale cinereous-yellow. Body cupreous-black, abdomen with slight yellow segmental bands; palpi black above, pure white at the side; legs black, femora golden yellow beneath, tarsi with yellow bands; antennæ black.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Darjiling. In coll. F. Moore and Dr. Staudinger.

## Tribe PYRALES.

## AGASTYA, n. g.

Fore wing very short, broad; costal margin very convex at the base in male, slightly arched in female; apex acute; exterior margin slightly oblique; first subcostal branch emitted at one half before end of the cell, second very close to the end, third from the end, bifid, the fourth thrown off near the apex, fifth from angle below end of the cell; discocellular outwardly oblique, bent near the upper and lower end, concave in the middle, radials from the angles; upper median branch from end of the cell, middle branch from near its end, lower at one third before the end; cell broad, longest at its lower end; submedian straight. Hind wing very broad, short, apex

hardly convex, exterior margin convex towards anal angle; costal vein thick at the base, concave in the middle, subcostal anastomosed to costal from its base to near end of the cell, and the first branch again anastomosed to it immediately beyond the cell to half its length, second branch emitted from end of the cell; discocellular extremely slender, very obliquely concave; cell short anteriorly, lengthened into an acute angle posteriorly, the radial and upper median branch being emitted together from its extreme angle; middle median branch from immediately before the angle, lower at one fourth before the end; submedian and internal veins straight. Body extending slightly beyond hind wing; thorax stout; palpi porrect, convergent at the tip, laterally broad, with a slight tuft projected upward from base of second joint, third joint minute, conical; legs long, smooth, fore tibia slightly tufted beneath; antennæ minutely serrated in male.

*AGASTIA HYBLÆOIDES*, n. sp.

*Male and Female.* Fore wing cupreous-brown, with a purplish gloss; a very indistinct darker discocellular patch and submarginal transverse fascia; a prominent pale yellow triangularly lobate spot on middle of posterior margin: hind wing blackish cupreous-brown, with an ochreous-yellow round discal spot and slight contiguous inner streak; cilia ochreous-yellow, alternated with black at the apex, middle, and anal angle. Body and palpi olivaceous-brown; legs pale yellow; fore tibia with a slight brown terminal band.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Darjiling, June (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*AGASTYA FLAVOMACULATA*, n. sp.

Similar to *A. hyblæoides*. Smaller in size: fore wing differs in having a small oval yellow spot situated between the median and submedian veins: hind wing paler at the base; marked the same.

Expanse 1 inch.

*Hab.* Darjiling (*Atkinson*). In coll. Dr. Staudinger.

EXPLANATION OF THE PLATES.

PLATE XXXVII.

- Fig. 1. *Thyatira decorata*, n. sp., p. 328.  
 2. *Palimpsestis alternata*, n. sp., p. 331.  
 3. — *cuprina*, n. sp., p. 331.  
 4. *Aletia distincta*, n. sp., p. 333.  
 5. *Hydræcia khasiana*, n. sp., p. 342.  
 6. *Adisura atkinsoni* ♀, n. sp., p. 368.  
 7. *Phalga sinuosa*, n. sp., p. 375.  
 8. *Lcucania compta*, n. sp., p. 336.  
 9. — *albistigma*, n. sp., p. 337.  
 10. — *albicosta*, n. sp., p. 338.  
 11. — *modesta*, n. sp., p. 335.  
 12. *Borolia fasciata*, n. sp., p. 334.  
 13. *Churia nigrisigna*, n. sp., p. 360.

- Fig. 14. *Erastria pallidisca*, n. sp., p. 372.  
 15. *Lucania nainica*, n. sp., p. 337.  
 16. — *howra*, n. sp., p. 337.  
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 19. — *consimilis*, n. sp., p. 336.  
 20. *Adisura dulcis*, n. sp., p. 368.  
 21. *Erastria marginata*, n. sp., p. 372.

## PLATE XXXVIII.

- Fig. 1. *Neuria simulata*, n. sp., p. 343.  
 2. *Apamea cuprina*, n. sp., p. 345.  
 3. *Graphiphora flavirena*, n. sp., p. 352.  
 4. — *nigrosigna*, n. sp., p. 352.  
 5. *Hermonassa sinuata*, n. sp., p. 353.  
 6. *Megasema cinnamomea*, n. sp., p. 352.  
 7. *Phothedes bipars*, n. sp., p. 373.  
 8. *Apamea mucronata*, n. sp., p. 345.  
 9. — *strigidisca*, n. sp., p. 346.  
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 12. — *cervina*, n. sp., p. 348.  
 13. *Acosmetia nebulosa*, n. sp., p. 350.  
 14. *Thalpocharcs quadrilincata*, n. sp., p. 370.  
 15. *Caradrina delecta*, n. sp., p. 349.  
 16. *Celœna sikkimensis*, n. sp., p. 348.  
 17. *Hermonassa chalybeata*, n. sp., p. 353.  
 18. *Euplexia distorta*, n. sp., p. 354.  
 19. *Cosmia hypenoides*, n. sp., p. 354.  
 20. *Dianthechia confluens*, n. sp., p. 354.  
 21. *Thalpocharcs trifasciata*, n. sp., p. 370.

2. On *Halichærus grypus* and its Breeding on the Fro Islands off Thronhjems-fjord in Norway. By ROBERT COLLETT, C.M.Z.S.

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In Norway the Grey Seal (*Halichærus grypus*) is found along the entire coast-line as far north as Tromsø. Although it is beyond comparison the most common species of Seal after *Phoca vitulina*, it can hardly be called numerous; but here and there are special places of resort, where they collect together in the autumn for breeding-purposes. In the most northern parts of the country it is doubtless rare, although our knowledge of the Seals of those regions is very limited. It has, however, been observed at Tromsø (69° 30') by Professor Lilljeborg; but no reliable observations have been made as to its existence in Finmark proper.

One of the principal breeding-places of this Seal is the Fro Islands, outside the Thronhjems-fjord, a group of small low-lying islands, stretching about 50 or 60 kilomètres from south to north, at a distance of about 30 or 40 kilomètres from the mainland. Besides eight inhabited islands, the group contains an innumerable